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ENVIRONMENTAL ASSESSMENT BOARD

VOLUME: 266

DATE: Tuesday, November 27, 1990

BEFORE:

A. KOVEN

Chairman

E. MARTEL

Member



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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental
Assessment for Timber Management on Crown
Lands in Ontario;

- and -

IN THE MATTER of an Order-in-Council
(O.C. 2449/87) authorizing the
Environmental Assessment Board to
administer a funding program, in
connection with the environmental
assessment hearing with respect to the
Timber Management Class
Environmental Assessment, and to
distribute funds to qualified
participants.

Hearing held at the offices of the Ontario
Highway Transport Board, Britannica Building,
151 Bloor Street West, 10th Floor, Toronto,
Ontario, on Tuesday, November 27th, 1990,
commencing at 9:00 a.m.

VOLUME 266

BEFORE:

MRS. ANNE KOVEN
MR. ELIE MARTEL

Chairman
Member

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I N D E X O F P R O C E E D I N G S

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I N D E X O F E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
1589	A six-page letter received by the Board on November 13, 1990 from Ms. Paton Lodge Lindsay, and a one-page response from the Board through Mr. Daniel Pascoe, dated November 27, 1990.	48207
1590	An excerpt, page 15 of the MNR Statistics 1988/1989.	48224
1591	The FFT witness statement No. 4, entitled: "The Forest or The Trees - Non-timber Values and Timber Management in Ontario".	48238
1592	The curriculum vitae of Dr. Robert Payne.	48239
1593A	Source book, Volume No. 1 for Forests for Tomorrow's Witness Panel No. 4.	48240
1593B	Source book, Volume No. 2.	48240
1593C	Source book Volume No. 3.	48240
1594	A file of interrogatories related to witness statement No. 4: Interrogatories from NOTOA, Nos. 5, 7 and 8; MOE, Nos. 2 and 3; and MNR, Nos. 4, 8, 11, 15, 22 and 26.	48242
1595	The Clark Stankey article consisting of 32 pages, dated December 1979, entitled: "The Recreation Opportunities Spectrum - A Framework for Planning Management and Research".	48243

I N D E X O F E X H I B I T S
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<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
1596	A 16-page article by Harold Eidsvik, dated April 1990, entitled: "Policy Formulation and Communication in Changing Times".	48244
1597	A 20-page document produced by CRESAP Consulting Company, dated April 1989, entitled: "Designing a Program of Change for The Ministry of Natural Resources".	48245

1 ---Upon commencing at 9:02 a.m.

2 MADAM CHAIR: Good morning. Please be
3 seated.

4 Mr. Freidin?

5 MR. FREIDIN: Mr. Marek -- well, firstly,
6 Madam Chair, I asked, you will recall, Mr. Marek to
7 look at some calculations on that Thimble Creek area in
8 the Jeglum article, and I asked him to confirm whether
9 my calculation of 2,826 plus per square mile was
10 accurate arithmetically.

11 Mr. Marek indicated to me at the end of
12 today that he would not prefer to do that. He just
13 didn't feel that that was reasonable.

14 What I would like to do, is I will
15 establish or prove those figures in reply evidence, but
16 I am just wondering whether we could just mark the
17 calculations that I have done as an exhibit, so I don't
18 lose it.

19 MR. MAREK: Madam Chairman, may I add a
20 comments to this, the reason why I refused?

21 MADAM CHAIR: All right, Mr. Marek, go
22 ahead.

23 MR. MAREK: Madam Chair, if anybody does
24 calculation on his own on a report, which is a
25 scientific report done by Mr. Jeglum, and questioned

1 certain figures or, as matter of fact, use it for
2 triviaa purposes, like in this case I feel, I think it
3 will be Mr. Jeglum.

4 It is a scientific report. And if there
5 is any addition to it or any discussion on it, it
6 should be done the scientist himself.

7 I personally feel very strongly that Mr.
8 Freidin is indulging in trivial, very trivial,
9 exercises here and I am not ready to do it.

10 I have a strong objection to criticize
11 scientists for a quote that has been done before by Mr.
12 Freidin on the basis of assumptions. The -- some of
13 the study perhaps haven't got a good ground for
14 conclusion, and I am talking about a report by Mr.
15 Jeglum from 1984, where he states in conclusion very
16 clearly that he is strip cutting the growth of the tree
17 of black spruce case.

18 There, that was avoided. And instead Mr.
19 Freidin indulges in some kind of trivial discussion
20 with something I cannot be part of.

21 MADAM CHAIR: That is fine, Mr. Marek.
22 We won't require you to confirm Mr. Freidin's
23 calculations. And the Board is very knowledgeable
24 about the issue of plots and plot size and number.

25 MR. MAREK: That's fine.

1 MADAM CHAIR: We have heard this from the
2 beginning of the hearing, and we understand what Mr.
3 Freidin is doing and he will address that in reply.

4 MR. FREIDIN: Madam Chair, it might be
5 just easier, I will make sure I don't lose the piece of
6 paper and I will do it at a later date.

7 MADAM CHAIR: Thank you.

8 MR. FREIDIN: It is a dangerous thing for
9 me to say, that I won't lose it.

10 GEORGE MAREK; Resumed

11 CONTINUED CROSS-EXAMINATION BY MR. FREIDIN:

12 Q. We were talking yesterday near the --
13 I guess at the end of the day -- about the training or
14 research and development, Mr. Marek. And during the
15 cross-examination by Mr. Hanna, you stated that the FEC
16 is a good beginning, but that we need to make it
17 accessible and understandable to the forester in the
18 field.

19 I want to ask you, sir: Do you have any
20 information as to whether any instruction has been
21 provided to field foresters in relation to the use of
22 the FEC, and if so, the nature of that training?

23 A. Again, this is a question which I
24 don't think has anything to do with my statement.

25 I have an intimate contact with many

1 government and private and research foresters. And I
2 understand that courses are being taken by them, and I
3 think the opportunity for further education is provided
4 by university, as a course in school right now.

5 I think Ms. Cronk there, she produced the
6 document where universities are improving their
7 curriculum. And yes, I keep touch with these
8 occurrences as much as possible.

9 Q. But in relation to training in
10 relation to the use of the FEC so that it has become
11 understandable by the forester in the field, do you
12 have any information as to whether any instruction has
13 been given to the field foresters in relation to the
14 use of those documents so that it is understandable by
15 them?

16 A. Sir, I cannot speak for universities
17 or forestry in general. I --

18 Q. So you don't know then whether they
19 have received any specific training then in relation to
20 the FEC guideline to date?

21 A. Well, there are many guidelines.

22 Q. The FEC documents, do you, sir, know
23 whether any training has been given?

24 My understanding is that it has. I just
25 wanted to know, can you confirm that the training has,

1 in fact, been given to the field foresters?

2 A. No -- yes, there is some training
3 given to the foresters.

4 Q. In relation to the FEC?

5 A. In relation to what?

6 Q. How to use the FEC so that it is --

7 A. How to use what?

8 Q. -- the forest ecosystem
9 classification.

10 A. Oh, I see. You are talking about --
11 you didn't mention it before, sir. Why don't you
12 concretely suggest to me there is certain
13 instruction --

14 Q. I believe I did, but let's just go
15 back.

16 A. No, you didn't.

17 Q. Your evidence was this, sir:

18 "FEC is a good beginning, but we need to
19 make it accessible and understandable to
20 the forester in the field."

21 Now, when you made that statement, I
22 wanted to know whether you had any information as to
23 whether any training had been given to the forester in
24 relation to the use of the FEC to make it
25 understandable, and my question is simply that: Do you

1 know whether they have received any training in that
2 regard or not, sir?

3 A. You modified already your question.
4 The question which you--

5 Q. Let's not argue about --

6 A. --directed to -- Mr. Freidin, let's
7 be clear on this. Give me a clear question what you
8 are after. If you talk about FEC training; in other
9 words, how to use FEC, yes, but you didn't say that,
10 sir.

11 Be specific, please. This is not trivial
12 pursuit here.

13 MADAM CHAIR: Is your answer then, Mr.
14 Marek, that, yes, you are aware that MNR and foresters
15 are trained to use FEC?

16 THE WITNESS: FEC. That was not the
17 question that I have given.

18 MR. FREIDIN: Q. And your answer is that
19 they are trained to use it?

20 A. Yes.

21 Q. Thank you. Could you turn to the
22 Forests for Tomorrow terms and conditions, Exhibit
23 14 -- 16A, and could you also have out with in front of
24 you Exhibit 1531, which is the Northwestern Ontario
25 Forest Ecosystem interpretations, please?

1 MADAM CHAIR: 1532, Mr. Freidin?

2 MR. FREIDIN: 1532, yes, sorry.

3 MADAM CHAIR: Excuse me, does everyone
4 else have this as 1532?

5 MS. SEABORN: Madam Chair, you will
6 recall that I referred to this in my cross-examination,
7 the Northwestern Ontario Forest Ecosystem
8 interpretations.

9 I referred to it as 1531, but I may have
10 been an error in the cross-examination, I am not sure.

11 MS. SWENARCHUK: Madam Chair, my exhibit
12 list had it as headed 1532, A, B, and C.

13 MADAM CHAIR: What you have is 1531? I
14 have got a different book today, so I don't.

15 MS. SWENARCHUK: Interrogatory responses.

16 MADAM CHAIR: All right. I am quite sure
17 it is 1532.

18 MS. SEABORN: Thank you.

19 MR. FREIDIN: Q. Now, Mr. Marek, if we
20 could turn to page 4 of the Forests for Tomorrow's
21 terms and conditions?

22 A. The exhibit?

23 Q. 1416A.

24 A. Okay. What you are after, Mr.
25 Freidin?

1 Q. On page 4,

2 A. Page 4?

3 Q. In paragraph 2, subparagraph 4, which
4 deals with the forest ecosystem classification, do you
5 see that?

6 A. Page 4. Would you repeat that again?

7 Q. Page 4, term and condition 2, sub 4;
8 it is about three quarters of the way down the page,
9 the paragraph immediately above the heading
10 "silvicultural exceptions".

11 A. Yes?

12 Q. Okay. So, it is the paragraph that
13 says, "The MNR shall expand and improve the forest
14 ecosystem classification."

15 A. Yes, I have it.

16 Q. Now I just want to ask you some
17 questions about that. It goes on and says that they
18 should do that to ensure that the system considers and
19 incorporates information related to successional
20 trends?

21 A. That's correct.

22 Q. Now, just putting that document down
23 for a moment, did you pick up the Exhibit 1532 which is
24 the blue book?

25 A. Yes.

1 Q. The interpretations, and turn to tab
2 No. 2?

3 A. Yes.

4 Q. Page 31. So, it is page 2-31.

5 A. Treatment unit E?

6 Q. Yes, treatment unit E. It starts on
7 2-30, black spruce, jack pine, feathermoss, okay? That
8 is what we are talking about.

9 A. I have a feeling that we have a
10 different book, sir.

11 Q. No. 2-30 on the left-hand side, at
12 the top of the page, it has treatment unit E.

13 A. Where?

14 Q. Right at very top, 2-30?

15 A. Okay, treatment unit E, okay, yes.

16 Q. So what we are talking about in
17 treatment unit E, starting on page 2-30 is black
18 spruce, jack pine, feathermoss?

19 A. Feathermoss, yes, group.

20 Q. Group. And you would agree that what
21 it does for this treatment unit, if we look at 2-30,
22 that it combines a number of vegetation types and
23 indicates and breaks those out into three phases, phase
24 E1, phase E2 and phase E3, based on soil moisture?

25 A. Yes. I have a vegetation type here,

1 yes.

2 Q. And above that, it breaks out
3 treatment unit E into three different phases; you will
4 see phase 1, phase 2, and 3 above --

5 A. Yes, yes, I see.

6 Q. And this does so based on soil
7 moisture?

8 A. Dry soils, fresh soils, moist soils.

9 Q. And for the next -- over three pages,
10 there are certain suggestions or guidance given in
11 relation to the treatments which would be appropriate
12 in relation to those various types, those various
13 phases, within treatment unit E; is that correct?

14 A. Management consideration, that is
15 what you are talking about?

16 Q. Yes.

17 A. Okay, yes.

18 Q. Now, on page 2-31, under the heading
19 "competition", do you see that? Do you see the heading
20 "competition"?

21 A. Yes.

22 Q. And would you agree with me, sir,
23 that in relation to each of the phases, this document
24 indicates what species can be expected in the initial
25 successional stage after harvest?

1 For instance, in phase El, it says --

2 A. Yes, El, "no constraint to harvesting
3 on these sites."

4 Q. No, I am not looking to the
5 harvesting constraints. I am looking at the heading
6 "competition".

7 Do you see where it says "phase El", it
8 says:

9 "Moderate competition can be expected
10 from alnuscrista, trembling aspen
11 and -- is it salix?

12 A. Salix, as well.

13 Q. And it does the same sort of thing in
14 relation to the other phases within this treatment unit
15 and indicates that what will occur in the -- at least,
16 the initial successional stage after harvest -- is
17 different types of competition, and they describe them.

18 A. In this grouping, yes.

19 Q. Yes.

20 A. That's correct.

21 MADAM CHAIR: Excuse me, Mr. Waito, could
22 we ask you to sit back just a bit again? I think the
23 reporter needs to observe Mr. Freidin closely while he
24 is talking.

25 MR. FREIDIN: Q. Is that the sort of

1 successional trends that you were indicating that the
2 forest ecosystem classification should incorporate when
3 you made reference to successional trends in term and
4 condition 2(4)?

5 A. Not at all.

6 Q. You expect --

7 A. This is apart of it, yes, but it
8 doesn't express the quality and information which I
9 would like to see.

10 Q. All right. Now, the quality of
11 information that you would like to see would be
12 different in what respect?

13 A. First of all, Madam Chair, let me
14 point out that Mr. Freidin has selected sites which is
15 atypical to sites I am talking about.

16 My presentation here was talking about
17 so-called groups which has very little to do with what
18 Mr. Freidin just selected here.

19 These are deep sites which has a
20 competition of -- at least, this is obvious -- fairly
21 stable.

22 But if you have sites which are subjected
23 to rise of water table, if you have sites which can be
24 affected by harvesting meadow, then you have a
25 completely different ball game.

1 Q. All right. Can you just -- one
2 moment, please.

3 A. Yes.

4 Q. Mr. Marek--

5 A. Yes?

6 Q. --If we look at the soil site
7 characteristics--

8 A. Please do so.

9 Q. --on page 2-30 -- 2-30. Same page.
10 Don't turn the page. Just go back to the first page we
11 looked at, and you see where it refers to "soil site
12 characteristics"?

13 A. Yes.

14 Q. Are you saying that none of the FEC
15 soil types identified for phase E1, E2 and E3, that
16 none of them describe the soil conditions that
17 characterize the thin soil over bedrock sites that you
18 referred to in your evidence?

19 A. This is -- please look at the picture
20 of the stand here, sir. The typical composition of --

21 Q. Answer my question, sir.

22 Does phase E1, E2 and E3, in terms of the
23 soil and site characteristics which are said to fall
24 within treatment unit E, do any of them, sir, describe
25 the soil conditions on the sites that you have been

1 describing in your evidence?

2 A. No.

3 Q. Would you show me, Mr. Marek, where
4 in the forest ecosystem classification for
5 Northwestern, Ontario, either Exhibit 1531 or this
6 document, where we find the treatment unit that
7 describes or contains the soil types that you have
8 described in your evidence?

9 A. Break-throughs organic treatment unit
10 J.

11 Q. All right. Let's just slow down
12 here.

13 MADAM CHAIR: That is at page 240?

14 THE WITNESS: Page 239. It starts with
15 240, 241, wet organic.

16 MR. FREIDIN: Q. Well, I want you to do
17 this -- I want to make sure I get this.

18 Where do we start? Which one is the
19 first treatment unit that you say describes the sites
20 that you were talking about?

21 A. Treatment unit I, treatment unit J,
22 treatment unit J again, treatment unit K; all units,
23 sir, or groups which are dealing with danger of drastic
24 rise of water table or changes in water table.

25 Q. Just hold on a second.

1 Now, Mr. Marek, we got into this
2 discussion because I was referring you to the section
3 on page 2-31 which referred to competition. And you
4 suggested to me that all in all, it only -- it doesn't
5 have that for all the sections.

6 I suggest to you if we go to treatment
7 units I, J and K that you referred me to--

8 A. Yes.

9 Q. --that there is information in
10 relation to competition.

11 A. Yes.

12 Q. In relation to all three; is that
13 right?

14 A. Well, let's go through it.

15 Q. Well, all right. Let's look at I, at
16 2-40.

17 Would you agree that they have a section
18 in relation to the competition which it can be expected
19 to occur in terms of succession after harvest?

20 A. Yes.

21 Q. Would you turn to page 2-42 in
22 relation to treatment unit J? And would you agree that
23 the same information in relation to the succession
24 which can be expected after harvesting is set out for
25 the two phases which comprise treatment unit J?

1 A. Yes.

2 Q. Would you turn, please, to treatment
3 unit K on page 2-44? And would you agree, sir, that it
4 provides information in relation to competition in the
5 same way as well?

6 A. Yes.

7 Q. Then you were wrong, sir, then when
8 you were suggesting that the only -- that competition
9 information, information on succession, was only
10 provided in the Exhibit 1532 in relation to treatment
11 unit E; is that correct?

12 A. Madam Chair, where there is a mention
13 of rise of water table or water table deficiencies?

14 Q. Mr. Marek, we were talking about
15 competition?

16 A. This competition, sir, is adjusting
17 to the water table and this is a testimony which I
18 presented to the Board in the last three weeks.

19 Q. All right. Well, then maybe you
20 should go back then and let's try to answer my
21 question, my follow-up question, and that was: In what
22 regard is this information in relation to succession
23 deficient? What more would you like to see?

24 I am just trying to get your view on what
25 the deficiency is, Mr. Marek.

1 A. Yes, and you are getting it, sir.

2 Q. All right. And what is it that you
3 would add here? What is the sort of information in a
4 general way that is missing?

5 A. Sir, what is missing here is the
6 effect of water fluctuation on the forest floor, on the
7 vegetation.

8 What is missing here is the effect of
9 this water table on acidity of the site, the changes in
10 acidity, which is a very important part of the
11 ecosystem which was completely omitted here.

12 Q. Yes, and what else, please?

13 A. I could go probably two or three
14 different factors depending on quality of information
15 one, and if they are available.

16 However, moisture is the factor, a very
17 important factor, which was completely neglected here.

18 Q. All right. Moisture is completely
19 neglected?

20 A. That's correct.

21 Q. It does have information, would you
22 agree, if we go back to where we started with the black
23 spruce, jack pine, feathermoss, in relation to
24 treatment unit E? It does indicate different moisture
25 regimes for the different soils initially?

1 A. The uncut condition.

2 Q. In the uncut condition.

3 It does that?

4 A. In uncut condition.

5 Q. And you are saying it should have
6 information in relation to changes which might occur in
7 the moisture regime as a result of harvesting?

8 A. Yes, sir.

9 Q. All right, sir. Any other
10 deficiencies, Mr. Marek, or is that it?

11 A. Sir, I think that is one of the basic
12 ones which one should be concerned of.

13 Q. Okay.

14 A. Because that affects the acidity.
15 That affects, in turn, the nutrient cycling. That, in
16 turn, affects the total dynamics of the young growth
17 until, sir, ground closure.

18 Q. All right. So, I guess what we can't
19 agree on is that the FEC, in fact, does address the
20 issue of successional trends but does not do it to your
21 satisfaction; you would like to see it better?

22 A. Sir, I testified to it in the last
23 three weeks.

24 Q. Okay. Do you agree with what I have
25 just said, it does provide information in relation to

1 successional trends, but you would like to see more?

2 A. Yes.

3 Q. Let's move on to the recommendation,
4 sir, that there is -- it says:

5 "The FEC system" -- and I am looking at
6 2(4) -- it says:

7 "The FEC system she also be expanded to
8 incorporate and reflect information
9 related to site productivity."

10 A. Yes.

11 Q. Would you turn to Tab 3 in the
12 Exhibit 1532, which is the interpretations, and would
13 you turn to page 3-12, please?

14 A. Yes.

15 Q. And we have a table there that is
16 entitled "soil moisture, drainage, texture and slope
17 position factors as they relate to the Northwest,
18 Ontario, FEC soil types and black spruce growth"?

19 A. Yes.

20 Q. And in the left-hand column, sir,
21 they have best growth, moderate growth, and poorest
22 growth.

23 A. Yes.

24 Q. And by reason of the asterisk, they
25 take you down and indicate what they are really doing

1 is reporting site index?

2 A. Plonsski's yeild tables.

3 Q. Would you agree, sir, that site index
4 is an indication of site productivity?

5 A. Yes.

6 Q. And so what this says for black
7 spruce, it describes that you would get the best growth
8 or you would get the best productivity for black spruce
9 on the sites which had the characteristics which are
10 set out in this table across from best growth to the
11 right-hand side of the table?

12 A. Correct.

13 Q. They do the same, am I not correct,
14 sir, for jack pine, if you go to 3-14?

15 A. Correct.

16 Q. Right?

17 A. No doubt.

18 Q. So, can we can agree then -- I take
19 it from your evidence that is that is not sufficient in
20 relation to site productivity?

21 A. It is not sufficient.

22 Q. Yes, you don't think it is
23 sufficient?

24 A. No, no. This is sufficient for
25 natural regeneration or for natural stands established

1 by wildfire; in other words, the virgin forest, yes.
2 This is how Plonsski built his yield table, on
3 condition in virgin forest.

4 Q. All right. If you harvest in a
5 careful manner and you don't cause site degradation, is
6 this information in relation to site productivity not
7 useful or applicable in terms of making prescriptions
8 for the new forest?

9 A. In other words, are you trying to
10 tell me, sir, that if you haven't got a water table as
11 is in the original stand, that you haven't got a
12 problem?

13 Q. That wasn't my question.

14 A. Well, the question is a price for
15 natural stand, sir, and then you cannot apply this to
16 disturbed conditions.

17 Q. All right. And when you say
18 "disturbed conditions", you mean -- would that
19 include --

20 A. Harvesting of timber period.

21 Q. Even if it is done in a proper manner
22 according to your --

23 A. It has nothing to do proper manner.

24 Q. All right. No -- I am just trying to
25 understand, Mr. Marek, and I do understand. Thank you

1 very much.

2 A. -- you will.

3 MS. SWENARCHUK: Madam Chair, Mr. Marek
4 has now been testifying before you. This is his fourth
5 we can. He has been subjected to most extensive
6 cross-examination by various counsel, as is their
7 right.

8 Particularly in the last couple of days,
9 I think the level of impatience of everyone has grown.
10 Again, Mr. Freidin is entirely within his rights to ask
11 the questions he considers proper to ask.

12 I would remind him, however -- and
13 perhaps this could be helpful to all of us at this
14 point -- that Mr. Marek is not the only forester who is
15 going to testify for Forests for Tomorrow. He is not
16 the only you an author of the silvacultural
17 prescriptions.

18 And the silvacultural prescriptions
19 clearly are prescriptions that the foresters testifying
20 for Forests for Tomorrow, who wrote them collectively,
21 agreed to.

22 And perhaps it might be helpful at this
23 point for Mr. Freidin to consider reserving some of his
24 questions for the subsequent foresters who will testify
25 for Forests for Tomorrow.

1 MADAM CHAIR: Thank you, Ms. Swenarchuk.

2 MR. FREIDIN: I have very few questions
3 left in this regard, Madam Chair, very few.

4 THE WITNESS: Madam Chair, may I add to
5 this? Allow me to add. We are dealing with two
6 different conditions. Mr. Freidin suggested to me that
7 by practising a forestry which will not disturb the
8 sites by rotting, by erosion, whatever it may be, the
9 same condition apply from the virgin forest to the
10 other forest later on.

11 My point is that cutting is a disturbance
12 by itself. It is a disturbance which affects the
13 ecosystem and mainly the water balances of the system.

14 Regardless how we -- how careful we
15 harvest black spruce forest -- and I am here testifying
16 on behalf of black spruce forest -- that indeed, the
17 impact is there by sheer fact that the moisture regime
18 do change from the original system. Thus, to my
19 testimony, changes also the productivity in many of
20 these black spruce sites.

21 So, when Mr. Freidin argues that we are
22 going to cut very carefully, we are going to -- which
23 we should do anyway -- not disturb the site, follow up
24 harvesting by dragging trees out or using equipment,
25 that the condition may be just as beneficial or just as

1 good as before.

2 Of course, I do not accept it because I
3 feel very strongly, and I testified to it, the water
4 balance plays a very important part in the role of the
5 ecosystem, as such, in a productive video of the system
6 as such. Thank you.

7 MADAM CHAIR: Thank you, Mr. Marek.

8 MR. FREIDIN: Thank you, Mr. Marek.
9 That's helpful.

10 Q. And just one last question on this
11 treatment unit E where we started, sir?

12 A. Yes.

13 Q. I am going to ask you about that just
14 for a moment because in Forests for Tomorrow's terms
15 and conditions, it refers to the need to -- and I am
16 looking at the third line of 2-4 or term and condition
17 2-4 -- "to incorporate information related to
18 successional trends."

19 And then it also says:

20 "And forest floor changes caused by
21 harvesting--

22 A. And other disturbances, yes.

23 Q. --and other disturbances."

24 In terms of harvesting, can we just
25 agree -- and let's not worry about the quality of the

1 information --

2 A. Yes.

3 Q. -- but the FEC does, in fact, address
4 the issue of harvesting constraints, if we look at
5 2-31, in relation to each of the phases.

6 And if we turn to page 2-32, it also has
7 information related to the limitations to equipment in
8 relation to each of the phases?

9 A. Yes, that is there, I agree.

10 Q. Fine. Thank you very much.

11 Now, Mr. Marek, my last sort of question
12 in relation to the FEC relates to the cross-examination
13 by Ms. Seaborn.

14 You will recall she took to you page 1-7;
15 this is of Exhibit 1532,

16 A. What is the page of that?

17 Q. 1-7 -- Tab 1, 1-7. It is the one
18 with this little shaded-in block on the right-hand
19 side?

20 A. Okay, yes.

21 Q. Okay. And you agreed with Ms.
22 Seaborn that that particular -- those three lines
23 should come out.

24 And my notes were unclear. And I am not
25 suggesting what you said or what you didn't say. I

1 just want some clarification.

2 Is it your view that even though this
3 document, the FEC document and the interpretations'
4 document, need some improvement, do you believe that it
5 is reasonable, nonetheless, to use these documents for
6 the purposes of developing silviculture prescriptions?

7 In other words, we have to improve it,
8 but I am suggesting to you, it is -- I will put it this
9 way: I suggest it is reasonable to use them at the
10 present time for the purposes of developing
11 silvicultural prescriptions while any improvement is
12 ongoing.

13 A. It is a beginning of the tool for
14 forest managers to look at the site and say, 'this is a
15 condition of the original stand', then look at the
16 cut-over and say, 'how much cut-over changed?'.

17 And some of the guidelines are here, I
18 agree, but it should be considerably improved as it is
19 being done now in other provinces by stating the risks
20 and some of the changes which again impact on the
21 productivity of the site and the result -- the
22 regeneration in order to have a better idea to plan for
23 future stands.

24 Q. And I understand, sir, the areas that
25 you feel it should be improved in.

1 My question is -- based on your evidence,
2 if it was already improved, it would be a better
3 document. And I am just asking you: Is it reasonable
4 to use these for the purposes of developing
5 silvicultural prescriptions now, notwithstanding, or it
6 hasn't been improved yet?

7 In other words, does it have to be sort
8 of perfect or improved to the 'nth' degree before we
9 use it, or should we use it now because it is the best
10 we have got right now?

11 A. This is the best we got now.

12 Q. And should we use it, therefore,
13 while we are attempting to improve?

14 A. We should use it with caution,
15 perfectly well knowing that many drastic changes occur
16 after harvesting.

17 Q. All right.

18 MADAM CHAIR: Mr. Marek, your evidence
19 before the Board is that you believe that the use of
20 the FEC systems should be manditory.

21 And I understand that that is when they
22 are revised or improved or have a wider base of
23 knowledge where they can be applied by foresters?

24 THE WITNESS: Madam Chair, many foresters
25 are confused. The confusion comes from that they don't

1 recognize the condition prior to cutting and after
2 cutting.

3 The confusion is that a forester who
4 subscribes in a great hurry -- I must point out that
5 this is done in a big hurry sometimes. Harvesting is
6 a -- and all of a sudden, the forestry is faced with a
7 prescription how to regenerate.

8 He takes this, look at it, and sees a
9 condition of the return. All these plots, all these
10 sampling, all this research was done in natural stands,
11 with a condition which the foresters do not recognize
12 after the area has been harvested.

13 He goes in and says, 'it looks different.
14 It is all mud, or it is all this, it is all that. It
15 changed'. How can he the really make a sound
16 prescription when he doesn't recognize the condition
17 which is written up here?

18 MADAM CHAIR: Is your evidence, Mr.
19 Marek, that if the FEC is changed so that post-harvest
20 conditions are adequately described and understood in
21 the document--

22 THE WITNESS: And the risks involved in
23 it.

24 MADAM CHAIR: --and the risks attached to
25 it--

1 THE WITNESS: That's right.

2 MADAM CHAIR: --then this sort of
3 document should be -- it should be mandatory use by
4 foresters?

5 THE WITNESS: Yes.

6 MADAM CHAIR: Foresters must use it?

7 THE WITNESS: Yes.

8 MADAM CHAIR: But in the state, the
9 condition that it is right now, they must use it with
10 caution?

11 THE WITNESS: That's right.

12 MR. FREIDIN: Q. And Mr. Marek, what
13 role, if any, does Forests for Tomorrow see the
14 silvicultural guides playing if the terms and condition
15 of the silvicultural prescriptions that you have
16 recommended are adopted? That is my question, what
17 role, if any, do --

18 A. Sir, the reason I have worked on the
19 silvicultural prescription guide, FFD, was simply
20 because I'm aware of this risk because I worked in this
21 area for four years, okay? I have seen many cut-overs.
22 I have seen many original stands.

23 And sir, if we are going to get in a very
24 intensive management or management which I have
25 suggested of modified cutting of smaller or clear-cut

1 management, surely, surely, these prescriptions should
2 be not only sound but also should protect the foresters
3 not to duplicate mistakes. And we are dupliating
4 mistakes, sir.

5 My view of cut-overs is that sometimes I
6 don't know what I would prescribe, believe me or not.
7 I don't know. I look at this and I have put it in the
8 slides here, sir, in front of you. I see tree planted
9 in a mucked up area which had trees which do not have a
10 chance even to survive a few months.

11 Was that prescription right? Obviously
12 not. We have wasted money. We have wasted effort. So
13 why do we do it? And we do it again, again, again.

14 That is why I have put it in front of
15 you, sir, to see that -- not to bash the company, but
16 to the ask them to use, at least, some of these ideas
17 from here, correlated with some kind of experience
18 showing very clearly that you don't plant trees in the
19 muck, at least, one, two, three years after
20 disturbance.

21 Q. All right. And my question then
22 really then is: Does Forests for Tomorrow see a role
23 for the silvicultural guides? Should these foresters
24 then take the information in the silvicultural guides;
25 in other words, still use it and correlate the

1 information in those with their experience to develop
2 prescriptions?

3 A. Madam Chair answered that question
4 for me, with caution and experience, and further
5 investigation of how we can improve -- a bible or book
6 which is very valuable or should be valuable and should
7 guide us for better management.

8 Q. And you understood that my question
9 was in relation to use of the silvicultural guides, not
10 the FEC?

11 You know the silvicultural guides I am
12 talking about, like the spruce silvicultural guide, the
13 jack pine silvicultural guide? That's what I am
14 talking about. We should still use those and correlate
15 it with experience of foresters to develop
16 prescriptions?

17 A. I think the silvicultural
18 prescription will be based on many things which will be
19 contained in these FECs.

20 MADAM CHAIR: Mr. Marek, when a forester
21 is making up his silvicultural plans, would he go first
22 to the FEC information or would he go to the
23 silvicultural guides? If he were looking at black
24 spruce, would he pick up his black spruce guide and
25 read that and then go to the FEC, or would he say, no,

1 the most essential information is in here?

2 THE WITNESS: I think most of the
3 foresters have certain prescriptions in a management
4 plan, and these prescriptions perhaps are not again
5 fully explained.

6 Perhaps we need additional information as
7 we discussed two, three days ago; that they should be
8 additional. There should be additional information to
9 the so-called ground rules or silvicultural
10 prescriptions and that has been discussed here.

11 MADAM CHAIR: with respect to the
12 silvicultural guides, though, obviously there is a lot
13 more information in each of those documents about a
14 particular species than there is in the FEC document.

15 THE WITNESS: And I think it should be.
16 I think it is -- this is a guiding book, where the
17 really finesse of the silvicultural practised in the
18 bush is just guided by overall.

19 These groupings -- I work with scientists
20 on these groupings and we had a problem, Madam Chair,
21 that we couldn't create groups which would encompass
22 the complexity of our forest.

23 These books, some of them, they were
24 originally prescribed up to 30 different groups, 30
25 different groupings. Now, when you come with 30

1 different groupings, you have a variation of
2 conditions.

3 And scientists like Jeglum and Simms and
4 all these people who I know very well -- and my
5 daughter worked on that, too, besides -- were saying,
6 how complex can we get? Can we shorten it up and
7 categorize it in few groups so the forester doesn't get
8 completely confused, because after all, the
9 prescriptions are drawn out of this? This is a kind of
10 baseline from here you start on.

11 And I think one of the problems will be
12 that it is going to require ingenuity, experience, and
13 all these things by the forester to make this the kind
14 of guidance which could be applied to the complexity of
15 the forest.

16 MADAM CHAIR: Thank you, Mr. Marek.

17 MR. FREIDIN: Q. I think I have got
18 that. And perhaps Mr. Waito hit the nail on the head
19 here.

20 Could you turn to the Exhibit 1532, page
21 1-8?

22 A. 1532.

23 Q. You have got the right book, the 1-8.

24 A. 1-8?

25 A. Yes.

1 Q. Under the heading "special
2 considerations"?

3 A. Yes.

4 Q. Would you take a moment and to
5 yourself read the second paragraph under that and tell
6 me what --

7 A. You are talking about series of
8 provincial publications?

9 Q. Yes. And could you just read that
10 and when you finish, tell me?

11 A. Yes, I am aware. I read it before.

12 Q. Do you agree it is a reasonable
13 position to take?

14 A. Yes. Scientists who wrote this
15 realize the problem.

16 Q. All right. And so the answer is you
17 think it is a reasonable position to take as outlined
18 in that second paragraph?

19 A. Oh, I think it composed this book.
20 What more can you ask?

21 Q. Thank you very much.

22 Mr. Marek, just a couple of questions
23 remaining about photographs. The photograph that I
24 wanted to ask you about is the one -- is photograph No.
25 78.

1 A. Yes.

2 Q. No. 78 is the photograph which, I
3 believe, depicts the situation that you describe on
4 page 25 of Forests for Tomorrow's witness statement?

5 A. Yes.

6 Q. All right. In addition to having
7 that picture in front of you, could you also open
8 Exhibit 1514, which is the Forests for Tomorrow witness
9 statement at page 25?

10 A. Wait a minute. You are talking about
11 a witness statement now?

12 MR. FREIDIN: Yes.

13 Now, Madam Chair, there was an errata.
14 Maybe Ms. Swenarchuk can help. There was an errata --

15 MADAM CHAIR: We have it on our page.

16 MR. FREIDIN: Oh, all right, because I
17 have stapled mine onto the page.

18 MADAM CHAIR: We have taped ours on.

19 THE WITNESS: What page was he talking
20 about?

21 MR. FREIDIN: Q. See if Mr. Marek has
22 the errata there.

23 A. Yes, prior density of the forest
24 grown in -- yes, sir, we have it.

25 Q. Okay, good. So, I think we have the

1 documents --

2 A. Yes, we have the document. We have
3 the photographs. Let's go to it.

4 Q. Excellent.

5 Now, in the picture--

6 A. Yes.

7 Q. --are we observing the separation of
8 the forest floor--

9 A. Yes.

10 Q. --from the mineral soil or separation
11 within the forest floor itself?

12 A. It is separation between organic AH
13 layer.

14 Q. The AH layer.

15 A. AH layer and the dried-out forest
16 floor above it.

17 Q. All right. And the AH is the humus?

18 A. AH is fully decomposed layer, fully
19 decomposed layer which is part of the humus, yes

20 Q. And the humus, as I understand it, is
21 considered as part of the forest floor?

22 A. Correct.

23 Q. Right. So, what we see in the
24 picture then is a separation within the forest floor
25 itself?

1 A. Right.

2 Q. Okay. Thank you.

3 Could the rooting system, or does the
4 rooting system of black spruce which was harvested play
5 any role in the separation which occurs?

6 A. Yes.

7 Q. What role does that rooting system
8 play?

9 A. Because it becomes suspended due to
10 the vertical separation.

11 Q. Does it have any causal effect in
12 relation to the separation?

13 A. Oh, very much so, because you have
14 air pockets. You have --

15 Q. No. Does the rooting system cause
16 the air pocket?

17 A. Oh, the rooting -- no, the rooting
18 system here, in this case, is a victim of the
19 separation.

20 Q. Okay. Fine.

21 Now, you made a comment in your evidence
22 that there is movement of the decomposed material down
23 in this picture. And I believe your evidence indicated
24 that there was a move -- all right, let's leave that
25 aside.

1 The situation which we see here--

2 A. Yes.

3 Q. --am I correct that it is alleged to
4 have occurred because of water table changes?

5 A. That's correct.

6 Q. Am I correct there that it is not the
7 result of bearing pressure of equipment?

8 A. This has nothing to do with
9 equipment, sir, nothing to do with equipment.

10 Q. All right. Can we look at page 25 of
11 the witness statement?

12 A. Yes.

13 Q. And you indicate in the first line,
14 it says:

15 "Depending on the physical properties of
16 the soils, there is a vertical
17 restructuring of the soil profile--

18 A. Yes?

19 Q. --after the humus layer has dried
20 out."

21 A. Yes.

22 Q. Is this something which occurs --

23 MS. SWENARCHUK: This is in the errata.

24 MR. FREIDIN: Q. It is in the errata?

25 A. Okay. I just was saying that I

1 cannot concentrate on the pages and listen to you at
2 the same time.

3 Q. If I am going to quickly and you want
4 to look at the pages, just tell me to stop.

5 A. No, just you tell me.

6 Q. It says this in the witness
7 statement:

8 "Depending on the physical properties of
9 the soils, there is a vertical
10 restructuring of the soil profile after
11 the humus layer has dried out."

12 A. That's correct.

13 Q. Is this something which occurs on
14 peat sites only?

15 A. No. This doesn't have to happen on
16 peat sites only.

17 As I said, the AH layer which is below
18 the desiccated -- play a very important part in it,
19 because as moisture rises, the whole top horizon of
20 this humus layer rises, creating these air pockets;
21 that way, of course, lifting the total root system
22 in --

23 Q. I am sorry, are you finished?

24 A. Well --

25 Q. My question then is: What other

1 kinds of sites, other than peat sites, have you
2 witnessed this sort of phenomena?

3 A. This happened on many black spruce
4 sites from organic deep peat sites--

5 Q. Right.

6 A. --right down to shallow over bedrock,
7 peat stratas which may be only a few inches. This
8 happen on many -- deposit sites which there is a
9 minimal accumulation of organic material but heavy
10 pronounced more humus layer. It happened on many
11 sites.

12 And sir, this again goes back to the
13 guidelines, FEC, because that should be mentioned
14 there. That is a very important guide and it is for
15 the structuring of forest holes. So it has many
16 causes, sir, but it is mainly caused by fluctuation of
17 water levels.

18 Q. Okay. And I note in the last
19 sentence -- and I will read this.

20 A. Yes.

21 Q. Sorry, it is the second last
22 sentence. You say:

23 "It has been observed on many occasions
24 that the rising and declining water
25 tables of even a few centimeters, which

1 may include a seasonal fluctuation,
2 brings with it a separation of the
3 organic substrates from the bulk of the
4 desiccated forest floor."

5 A. That is correct. That is why you
6 have these air holes.

7 Q. All right. And are you suggest there
8 that this phenomena can occur as a result of seasonal
9 fluctuations which would occur in an undisturbed
10 condition through nature?

11 A. It exaggerates the effect.

12 Q. All right. So, this phenomena occurs
13 in nature, but it is your view that the disturbance of
14 harvesting can in certain circumstances exaggerate the
15 effect?

16 A. That's correct.

17 Q. Thank you.

18 You made mention in your evidence, sir,
19 about the possibility to go into naturally regenerated
20 stands for the purpose of spacing.

21 Do you recall that evidence?

22 A. Yes.

23 Q. And are you able to advise me whether
24 or not any of the studies which have looked at the
25 issue of strip cutting have included as any part of the

1 cost the cost of spacing?

2 A. Cost of spacing in natural
3 regenerative black spruce then, no, it has not been
4 done.

5 Q. All right. You have spaced natural
6 black spruce stands?

7 A. Yes.

8 Q. Are you in any position, sir, to give
9 us an estimation of the cost?

10 A. This cost -- the spacing was done
11 by -- way back we started in spacing trials on black
12 spruce, natural regenerative stands, back in 50s, '58,
13 '59.

14 Q. Right.

15 A. And to compare the cost -- these
16 costs could be available by the whole lands and forest
17 which were reported, and so.

18 But to transfer these costs into the
19 1980s is something which -- because at that time, the
20 labour -- I remember the hourly rate for one-year
21 labour was something in the vicinity of \$2.00 or \$2.50.

22 Q. Okay. That is fine. Let's not spend
23 any more time on that.

24 The last photograph I want to just ask
25 you some points of clarification on is a photograph

1 that Madam Chair asked you about. It is photograph
2 159.

3 A. Yes, 159?

4 Q. Yes, 159.

5 A. Yes, I have it here.

6 Q. Now, this is a picture where my notes
7 indicate that Madam Chair asked you whether the smaller
8 trees in the foreground were advanced growth. I
9 believe you said that they were.

10 A. There was a mixture of advance growth
11 and a seeded stuff -- pardon me, the black spruce which
12 is seeded, and I didn't analyse actually the individual
13 trees, but I have looked here and there and I am
14 finding some of the distance is quite a long -- it is
15 quite a long time since I have done this experiment.

16 And to answer your question, these trees
17 which are in the foreground, they may be a combination
18 with advance growth and some of the --

19 Q. All right. And this is the picture
20 where you said you didn't experiment and the
21 background, you didn't some site preparations; in the
22 foreground, you didn't do any site preparation?

23 A. That's correct.

24 Q. Now, we have taller trees in the
25 background; shorter ones in the foreground?

1 A. That's correct.

2 Q. Was the whole area where those trees
3 are now standing, was it all cut at the same time?

4 A. That's correct, yes. That was large
5 clear-cut of probably two, three square miles.

6 Q. And it is your evidence then that the
7 trees in the background which are taller--

8 A. That's correct.

9 Q. Was an area where you went in and did
10 some site preparation?

11 A. I did some site preparation, yes.

12 Q. And did you do that early on in the
13 life of the new stand, or was the --

14 A. No. After clear-cutting, I have a
15 problem with this large clear-cut because I have found
16 conditions similar to the picture show with these air
17 pockets.

18 Q. Right. All I am trying to say -- so
19 when did you go do the site preparation in the area
20 where we have the larger trees? Like how many years
21 after --

22 A. Two years after cutting.

23 Q. All right. And are those good
24 standing black spruce there in the background?

25 A. Yes.

1 Q. How was that large clear-cut
2 regenerated?

3 A. Through the sporadic regeneration of
4 the sites you see in the front, there is lots of
5 Laborador tea. Laborador tea is a ericaceous plant.

6 Q. So we were talking about, you know,
7 how this large cut-over got regenerated.

8 A. Yes, that's right.

9 Q. And I think perhaps you could sort
10 of -- you said -- well, maybe you can just repeat your
11 answer or give me your answer.

12 A. The foreground represents the --

13 Q. The foreground?

14 A. The foreground; in other words, the
15 Laborador tea on the forest floor -- look at --

16 Q. Yes, we are looking at the area in
17 the foreground of the picture where we have the smaller
18 trees?

19 A. Smaller trees.

20 Q. All right. So we see --

21 A. There are lots of Laborador tea
22 there.

23 Q. Yes?

24 A. Trees are smaller.

25 Q. Yes?

1 A. And in the background, you can see
2 the air which I have treated by marching, by site
3 preparation.

4 Q. Right.

5 A. And the whole area is regenerated by
6 nature. There was no planting done. There was no
7 seeding done. Everything occurred according to nature.

8 Q. All right. And what was -- I am
9 sorry.

10 MADAM CHAIR: Excuse me. Mr. Marek, I
11 just want to point out these trees because I want to
12 make sure we are talking about the same background.

13 These trees were the naturally seeded
14 trees as a result of site preparation.

15 THE WITNESS: Correct.

16 MADAM CHAIR: These trees are three times
17 the size of the trees in --

18 THE WITNESS: I didn't measure it close.

19 MR. FREIDIN: Which?

20 MADAM CHAIR: These big trees in the
21 background are the ones Mr. Marek is telling us were --
22 that area was site prepared and this is a result of
23 natural seeding.

24 THE WITNESS: Yes.

25 MR. FREIDIN: Q. And that really gets to

1 the nub of my question; these trees, the large ones in
2 the area that you site prepared, they germinated from
3 seed?

4 A. From seed, yes.

5 Q. And where would the seed have come
6 from in this large cut-over?

7 A. There were pockets of -- you know,
8 groups of tree left in that cut-over. I mentioned
9 there were trees which sometimes were in the size of
10 four acres or they were left standing and they are
11 causing the seeding in the site-prepared area.

12 MADAM CHAIR: And none of these is a
13 residual seed tree. This is all new growth.

14 THE WITNESS: No. This has been -- these
15 are the all cut-overs.

16 MADAM CHAIR: Well, then I understand it.

17 MR. FREIDIN: I understand it now, too.

18 Thank you, Mr. Marek.

19 THE WITNESS: I think it would be of
20 interest to you, Madam Chair, to go back to that
21 previous photograph. This is disturbing the biodiversity
22 density.

23 That area originally, when it was cut,
24 two years later, was similar to one on the photograph;
25 in other words, there was this --

1 MR. FREIDIN: Q. You are saying the site
2 where we had the vertical separation?

3 A. Exactly.

4 Q. Was a situation which occurred on the
5 site which is shown as Exhibit 159?

6 A. No, no, it is not the same one but a
7 similar one and site condition very, very similar. And
8 the whole successional stages later on following the
9 Laborador tea--

10 Q. Yes?

11 A. --encouraged it, so were similar to
12 which what at the beginning looks like on the
13 photographs I have shown these vertical disturbances in
14 the holes, in the openings.

15 Q. Just for clarification, on the site,
16 which is photograph 159--

17 A. Yes.

18 Q. --were there holes or this
19 separation--

20 A. Yes.

21 Q. --that you have depicted in earlier
22 photographs?

23 A. Exactly.

24 Q. Thank you.

25 Now, you gave a lot of evidence, sir,

1 about second growth forests?

2 A. Yes.

3 Q. You have made -- used the phrase that
4 we created silvicultural slums.

5 A. That was Mr. Baskerville.

6 Q. Mr. Baskerville. And you have
7 adopted it and you said -- threw up your hands, 'what
8 are we going to do about this'?

9 A. That's correct.

10 Q. Ms. Swenarchuk asked you a question,
11 and she said:

12 "It is your view that the problems of 60
13 or 70 years ago is continuing today?"
14 And you answered, 'yes'.

15 A. Yes, to some degree.

16 Q. All right, to some degree.

17 A. On second sites. Again, we have to
18 be very careful there.

19 Q. All right. Can we agree, sir, that
20 the following things have changed over the last 60 or
21 70 years, that there are plantations now and there
22 weren't any 60 or 70 years ago?

23 A. Correct.

24 Q. That we utilize more in terms of
25 species from stands than we did before?

1 A. Yes.

2 Q. That silviculture has advanced even
3 since the early 1960s when we were dragging rocks
4 around as a site preparation mechanism?

5 A. Yes.

6 Q. And would you agree, therefore, that
7 if, in fact, this problem of creating second growth
8 forests which are unacceptable is continuing today, can
9 we agree that it is not occurring to the same magnitude
10 and frequency as a result of these changes?

11 A. Yes.

12 Q. Thank you.

13 Now could we -- you had a discussion with
14 Mr. Hanna about the FRI, and he was asking you about --
15 'well, how long might it take us, Mr. Marek, to improve
16 it?'

17 A. Yes, I remember it.

18 Q. And we got into this discussion about
19 whether it was one --

20 A. How quickly we can do it.

21 Q. Right. And at one stage of the
22 cross-examination, you mentioned one year; and Mr.
23 Martel asked some questions. And part of it says:

24 "It just seems to me that that is
25 simplistic, that one year is all that is

1 lacking in gathering data so that we can
2 start demands in the forest in a
3 different way."

4 And he says, "if I am wrong" -- and you
5 said, "oh, no," and you went on and you described a
6 situation, all right, in response to that comment
7 from --

8 A. Yeah, I remember it very well.

9 Q. You said:

10 "As a matter of fact", you said, "we have
11 done it because we had a problem in
12 a certain area of our district where we
13 were not sure really about the past
14 inventory--

15 A. That's correct.

16 Q. "--the present know-how, and there
17 was an expansion proposed by the company
18 which I thought was not justified because
19 the condition of the forest was not such
20 which would encourage the future yields
21 or future supply of wood continuously."

22 A. In other words, to justify the
23 expansion of the company.

24 Q. Right.

25 A. That's correct.

1 Q. Now, you said:

2 "We have put together with the industry
3 and our staff priority to it; in one
4 year, we have cruised or recruised or
5 resurveyed or rethink these conditions,
6 et cetera."

7 A. Correct.

8 Q. Now, the area that you, along with
9 the company, in fact, looked at in that one-year
10 period, was it all of a management unit or a portion of
11 a management unit?

12 A. No. We looked at the total
13 management unit with the allowable cut and the
14 condition we thought has to be justified.

15 When the company proposed expansion, they
16 proposed it due to the old management plan and old
17 inventory, which I, personally, didn't have too much
18 trust in; and the company agreed, put our knowledge
19 together, put people together, crews together, and
20 rethink the whole policy for the total area of the
21 management unit.

22 Q. Okay. Was the entire area of the
23 management unit cruised? In other words, did you do an
24 operational cruise across the entire management in that
25 one year?

1 A. No, we did not do because there was a
2 certain area where we had a pretty known situation.

3 In other words, we could depend that this
4 area will not change drastically from the previous
5 inventory, from previous information. So we looked at
6 it from the point where the problem was.

7 Q. All right.

8 A. And that was special in a mixed wood
9 working group. And some of the groups which undergone
10 the last 10 or 15 years serious deterioration due to
11 blow-down, due to some of the losses of merchantable
12 wood --

13 Q. All right.

14 MADAM CHAIR: Excuse me, Mr. Marek. This
15 had nothing to do with the Domtar cruising survey.
16 This had nothing to do with what we now call Exhibit
17 1588?

18 MR. FREIDIN: I don't think so.

19 MADAM CHAIR: That you produced and Ms.
20 Cronk looked at over the weekend, the report of --

21 THE WITNESS: No, no. That was later on.
22 That was the information within the 3-mile radius.

23 MADAM CHAIR: That you are talking about
24 a different --

25 THE WITNESS: That was followed up later

1 on, because that actually followed these events because
2 we have discovered first that there is a big problem
3 with wood supply or balsam wood, wood supply in the
4 future. So we start this investigation.

5 And the further investigation, of course,
6 followed, because this first information, what we got,
7 was not enough to justify something.

8 MADAM CHAIR: Right. And was the first
9 information obtained in the Domtar area for which the
10 report was eventually written?

11 THE WITNESS: That's correct.

12 MADAM CHAIR: So, it is the same
13 geographical area but not as large in extent as the
14 subsequent cruising?

15 THE WITNESS: Yes.

16 MR. FREIDIN: I missed that the last
17 point.

18 Q. What I am trying to get at, did you
19 crews some of the areas that you were concerned about?

20 A. We had to cruise some of the area,
21 some of the component which we thought had undergone
22 serious changes.

23 Q. Okay. And that would be the work --
24 that would have been some of the work done within that
25 year.

1 A. Yes.

2 Q. Could you indicate for me the
3 approximate area that you would have cruised -- done an
4 operational cruise on in that one year?

5 A. Should I point out on the map?

6 Q. No. Can you just give me an
7 approximation. How many hectares or acres are we
8 talking about?

9 A. I think we looked approximately more
10 in detail on, I would say, half of the license.

11 Q. No. I am talking about actually
12 going out in the field and doing an operational cruise?

13 A. Well, we were in the field for a
14 whole year. We had cruises or we had a cruise
15 investigating the situation in the field all year.

16 Q. And did they do that following the
17 the description of the methodology you followed?

18 A. Oh, I can show it to you on a map, if
19 you don't mind.

20 Q. I just don't -- unless you think it
21 is important, I don't think it is important. I would
22 just as soon get on to something else.

23 A. Just to clarify the situation, there
24 was a certain area in the management unit which has
25 undergone, to my knowledge, by frying it first and bu

1 observing it, that the wood value is not there as
2 indicated in previous inventory -- as indicated in
3 previous inventory.

4 In other words, when they put that
5 program together, we said something like this: 'Does
6 Domtar have 10-million cubic metres or 10-million units
7 of wood from -- of course, you draw -- and, of course,
8 compare it with the area allocation. And we said,
9 there is something wrong here that wood is not there.
10 Now, where does it make impact?

11 So, we designated the area in the large
12 blocks where we said 'this we have to look at it; this
13 we have to look at'.

14 The other blocks, we don't have to look
15 because through the aerial serveys and through the
16 information we had, the changes did not occur.

17 So we looked at the special areas which
18 we thought will affect, No. 1, the wood supply, the
19 allowable cut and so on.

20 Q. Okay.

21 A. And took us one year, and we came up
22 with a half an allowable cut, Madam, half of what was
23 there before.

24 Q. Okay. Thank you very much.

25 You have spoken in your evidence a number

1 of times about European forestry.

2 In terms of these forests that are
3 managed in Europe, how large are they?

4 A. They are very small comparing to
5 Canadian traditions.

6 Q. How small? Can you give me some idea
7 of what you mean by 'small'?

8 A. Sir, when you look at the territory
9 of so-called unit in Europe, that may be -- a fairly
10 large one would be 40,000 hectares.

11 Q. Okay. Now, does each one of those
12 European forests have a forester -- one or more
13 foresters assigned to them?

14 A. Oh, it has dozens of foresters.

15 Q. All right. Does it have staff
16 assigned to it in addition to the foresters?

17 A. Yes.

18 Q. Go can you give me some idea of the
19 number of foresters -- or staff that would be assigned
20 to one of those forests?

21 MS. SWENARCHUK: Well, Madam Chair,
22 surely that is not a reasonable question.

23 Mr. Marek, first of all, has not been
24 appointed with any specificity to a particular piece of
25 land. Surely Europe is an extremely varied geographic

1 locale. Undoubtedly conditions vary enormously from
2 one country to the other.

3 What possible benefit can this be to the
4 Board to hear this kind of evidence?

5 MADAM CHAIR: I think what Mr. Freidin is
6 exploring with Mr. Marek is a question that has
7 interested all of us. And we have heard from witnesses
8 other than yourself, Mr. Marek, that there are some
9 aspects of the way forestry is conducted in Europe. It
10 sounds appealing. It sounds as though they have more
11 control than we do in Ontario because of hundreds of
12 years of experience, as you have put it.

13 I think Mr. Freidin's question is getting
14 to the point, could we, in Ontario, have a staff
15 working in the forest? Could we have a number of
16 foresters per geographic units and the number of backup
17 staff or whatever that they have in Europe?

18 Is that really conceivable that we --
19 would we need, for example, tens of thousands of people
20 to get the same coverage as they have in Europe for a
21 much smaller area?

22 I think that is what the gist of the
23 question is.

24 THE WITNESS: That is what I understood.

25 MR. FREIDIN: Well, you are much more

1 direct than I, but we are getting to the same issue.

2 MS. SWENARCHUK: Exactly.

3 MADAM CHAIR: And so, is it feasible?
4 Could we, in fact, have the same proportion of people
5 working on our forests in Ontario as they have in
6 Europe? And if we did, how many thousands of people
7 would that involve?

8 THE WITNESS: Madam Chair, to answer,
9 again, varies from area to area even in Europe, let's
10 put it this way.

11 But generally speaking, the Europeans
12 have, due to the accessibility of the forest, the road
13 system, the experience, the whole management planning
14 process which is much more in detail.

15 They do manage quite different. They
16 utilize more the "labour force in the forest", which I
17 think probably could apply also to Canada, for
18 instance, in terms of native people.

19 And I suppose -- allow me to say that
20 perhaps some of the things which I think could be
21 transferred from Europe here, that is what you are
22 after.

23 So Madam Chair and Mr. Martel, it is
24 obvious that we are never going to practise forestry
25 like they do in Europe, regardless of how many people

1 they got and how many we can afford, because don't
2 forget, northern Ontario is very extently populated as
3 we all know; and there is a terrific amount of people
4 from the communities down south to you to Toronto or
5 some other places where they can have a better
6 lifestyle.

7 MR. MARTEL: Let me ask you a question
8 though __

9 THE WITNESS: Yes.

10 MR. MARTEL: Can we manage properly
11 without that people? I mean, it is one thing to say we
12 are doing so well in Europe and we are doing much
13 better in Europe and say, but in Ontario, we can't do
14 it as well -- pardon me, we can't afford the number of
15 people.

16 So the bottom line then is, can you ever
17 manage as well if you manage with far less people? Can
18 you monitor what is going on? Can you have the
19 foresters out there before and after the cut? If we
20 want the proper forests, do we need the staff?

21 THE WITNESS: Yes, we need more people.
22 That is why I am suggesting intensive management in the
23 vicinity or in areas where we can entice people to do
24 this, sir.

25 One of the problems with me when I came

1 up here, I start comparing European forestry with
2 Canadian-style forestry -- more than, I was told, we
3 don't have people.

4 The impression I had right from the
5 beginning was that we do it as cheaply as possible, as
6 quick as possible.

7 MR. MARTEL: But isn't that because we
8 thought we had so much land in perpetuity that we could
9 go on cutting and never worry about it; we would never
10 run out?

11 THE WITNESS: Sir, you are so right, but
12 on the other hand, isn't it a self-defeating purpose
13 when you don't entice people?

14 You know, the problem I have is, that if
15 I suggest let's practise intensive management in a
16 certain area -- and we talked about it yesterday, the
17 day before yesterday -- around say 50 miles or 100
18 miles around the mill, we are going to need people to do
19 that.

20 But obviously, we cannot practise
21 intensive management 200, 300 miles away from the mill
22 where people would not be willing to move.

23 And this is why I am saying to you again,
24 Madam Chair, that we have to have some policy, some
25 guidance where we are going to practise forestry and we

1 are going to say, 'okay, we are going to do a small
2 area, a clear-cut management, multi-purpose forestry
3 where they will not require as many people and
4 technology to serve good forest management'.

5 And I think what I am saying today is
6 what I said 40 years ago, 35 years ago, when I started
7 working for industry.

8 And I have read some of the statements
9 like Mr. Martel suggests, why should we practise
10 forestry or any kind of forestry or any kind of thing
11 where we never going to run out of "bush" -- never
12 going to run out of timber? There is always the next
13 hill or green hill, we are going to get to exploit it.

14 Now we are realizing in the last 20 years
15 that this never-ending timber is not running out. We
16 are not running out of timber, but that timber is very
17 far away. And in order to manage it, it is going to be
18 a problem not only to have the technology, but also
19 entice people to do it.

20 And I think industry is now faced with a
21 dilemma, indeed, how we are going to harvest timber 250
22 or 300 miles away, take it down to the mill at a
23 reasonable cost?

24 See, it is not only GST. It is not only
25 extra taxes which Americans put on us; it is a cost of

1 our timber extraction, to transport it, to track it and
2 to utilize it.

3 It is a very complex thing and you cannot
4 compare Europe here because in Sweden and in Norway and
5 in any European country, they have nurtured the future
6 crops right close by so they can tap it because they
7 have balanced each classes. They have a fair
8 distribution of species. They know what they want.
9 Their mill technology is far better than ours. I am
10 talking about mill, mill utilization.

11 And so, what are you going to do? I mean
12 you cannot answer these things because they have
13 control of the forest land; where we, in Canada, are
14 still asking the basic question: What are we doing to
15 the forest land?

16 We have been talking about half an hour
17 about water level rises, that it affects the growth
18 of -- but still, it is okay. We mitigate it. There is
19 no problem.

20 See, this is one of the basic differences
21 in Europe. In Europe, they know what the water table
22 does. They know about problem of ortstein -- on
23 alkaline, sorry.

24 --Reporter appeals.

25 MR. FREIDIN: I didn't get that one

1 either, Madam Reporter.

2 THE WITNESS: In German, ortstein. On
3 alkaline sites in Europe, you have a problem of calcium
4 being leached down to the strata where eventually the
5 water table rises and you have a problem of saturation
6 of water in the strata that shouldn't be; in other
7 words, water is not percolating to the system.

8 So you have an ortstein on many of,
9 what -- they have an answer to it. They know this is a
10 risk, so they work on it.

11 Here, we are talking here right now on a
12 basic what water does to the ecosystem.

13 MADAM CHAIR: Yes, thank you, Mr. Marek.

14 MR. FREIDIN: Q. Mr. Marek, you made one
15 comment about there was a big difference -- a
16 difference was accessibility if you look at a European
17 forest and our forest.

18 Is it fair for me to assume that all
19 areas European forests have been logged at least once?

20 A. Four or five times.

21 Q. All right. So, we are talking
22 hundreds of years you have gone back over and over?

23 A. About 300, 400 years anyway.

24 Q. And you built up this information
25 that you are talking about over that long period of

1 time?

2 A. That's correct.

3 Q. Thank you.

4 Can we just move on then to a couple of
5 questions on utilization? We talked about wastes. We
6 talked about the Crown Timber Act and taking
7 merchantable wood off -- out of the site.

8 You made a comment that scaling takes
9 place at the mill now, not in the bush?

10 A. Weighing the wood.

11 Q. Weighing the wood.

12 A. Instead of scaling it. Scaling is
13 done by weight.

14 Q. All right. So scalers aren't in the
15 field, in the boreal forest doing scaling. It is done
16 through measurement at the mill?

17 A. At the mill, that's correct.

18 Q. All right. Would you agree with me
19 that cut inspection reports which are prepared by
20 foresters or forest technicians--

21 A. Yes.

22 Q. --still requires the recording of
23 whether there is waste out in the field?

24 A. That is correct.

25 Q. So, in the past, maybe a scaler would

1 have done some of that, but now it is done by a
2 forester or a forest technician; is that correct?

3 A. Yes.

4 Q. Thank you.

5 An issue arose in Beardmore regarding
6 wood piled on skidways--

7 A. Yes.

8 Q. --which were shown in the video?

9 A. Yes.

10 Q. And I think there was some evidence
11 given there that that wood would be removed?

12 A. Yes.

13 Q. And are you able to confirm for me,
14 sir, that Buchanan Forest Products have commenced that
15 removal?

16 A. Yes. Last weekend, I got involved in
17 that.

18 Q. Are you able to confirm the amount
19 which has been removed to date?

20 A. I cannot tell you how much, if they
21 are finished with this, but they are removing it and I
22 have heard many of those loads are just falling apart
23 because so rotten the -- they cannot pile it up on a
24 load. So that's what I know.

25 Q. Now, you gave evidence, Mr. Marek,

1 regarding sensitive sites, and you said one of the
2 problems was an agreeing on a definition of that term.

3 And I think you said we should talk about
4 unstable sites because, for example, some shallow till
5 sites are, in fact, very productive?

6 A. Exactly.

7 Q. Is that right?

8 A. Very much. The part of the shallow
9 site where you have the pockets soil, that's correct.

10 Q. Okay. Could you turn to Exhibit
11 1556? It is an article which was -- I think it is at
12 Tab 25 -- yes, it is at Tab 25 of the OFIA binder.

13 A. That is -- strip clear-cutting in
14 upland black spruce?

15 Q. Yes.

16 A. Yes.

17 Q. Yes, the one in relation to shallow
18 soil, ecosystems under classifications?

19 A. Yes.

20 Q. And if we turn to page 71--

21 A. Yes.

22 Q. --and we look at the right-hand
23 column, the very first paragraph --

24 A. The need for better working
25 definition on shallow soils?

1 Q. No. It says -- it starts off
2 describing shallow soil sites.

3 A. Oh, I see, that's correct.

4 Q. All right. Now go down five lines,
5 and there is a sentence, it starts, "many shallow soil
6 sites".

7 A. Yes.

8 Q. And I want to just read that. It
9 indicates:

10 "Many shallow soil sites in the north
11 central region are composed of shallow
12 but very fertile finer textured soils."

13 A. That's correct.

14 Q. "Often the bedrock topography creates
15 deep soils or swales of deeper soil that
16 occur along nutrient-enriched seepage
17 lines."

18 A. Yes.

19 Q. As a result, site quality and stand
20 productivity are often greater than might
21 be expected for such sites."

22 Do you agree with that?

23 A. Yes.

24 Q. "Shallow soil sites are often capable
25 of supporting stands that exhibit good

1 growth and good stocking densities
2 despite rooting depth limitations."

3 Do you agree with that?

4 A. That is correct.

5 Q. "This is especially important for
6 black spruce which has a shallow rooting
7 habit."

8 A. That's correct.

9 Q. Now, in relation specifically to
10 shallow soil sites and their management , can I refer
11 you to the the last full paragraph on this page, just
12 above the heading 'silvicultural practices--

13 A. Yes.

14 Q. --on shallow soil sites'?

15 A. Yes.

16 Q. That paragraph states:

17 "There will be a continuing need to
18 manage shallow soil sites at various
19 intensities. Spacial and topographic
20 differences, company operating practices,
21 site quality, and the pressure to harvest
22 shallow soil sites are factors that can
23 all vary widely."

24 A. Yes.

25 Q. "Any improved definition of shallow

1 soil sites for silvacultural purposes
2 will consequently require considerable
3 flexibility."

4 Would you agree with that statement?

5 A. Yes, yes, I do.

6 Q. Thank you. Could we then move on
7 then, sir?

8 Madam Chair, are we going to have a
9 morning break at 10:20?

10 MADAM CHAIR: Yes. How are you doing,
11 Mr. Freidin?

12 MR. FREIDIN: Well, I have already got
13 one last area to go. I am going to ask him a question
14 about one -- oh, I think I could finish, if I get a
15 quick answers, in half an hour.

16 MADAM CHAIR: Well, we will have a break
17 then.

18 Ms. Swenarchuk, you are going to need a
19 break between Mr. Freidin finishing and your
20 re-examination?

21 MS. SWENARCHUK: At this point, no.

22 MADAM CHAIR: All right.

23 MS. SWENARCHUK: Except I will move to
24 that side of the table, so five minutes for that.

25 MADAM CHAIR: All right. Let's take our

1 morning break now. We will be back in 20 minutes.

2 ---Recess at 10:26 a.m.

3 ---On resuming at 10:47 a.m.

4 MADAM CHAIR: Please be seated.

5 MR. FREIDIN: Q. Mr. Marek, as a matter
6 of clarification, we had a discussion yesterday about
7 what happens to a tree once it dies in terms of its
8 ability to draw water up from its root system, like to
9 act as a pump.

10 A. Yes.

11 Q. Did you say that if a tree is killed
12 in a fire, that it might continue to act as a pump?

13 A. Well --

14 Q. I know you said that if it is
15 standing, it will intercept water perhaps.

16 A. To the forest, we call it dripping,
17 yes.

18 Q. Yes, but if a tree is dead, if it is
19 dead from a harvest or dead from fire, it no longer
20 sucks water up through its root system and act as a
21 pump; is that correct?

22 A. No.

23 Q. It acts -- just a minute -- will it
24 continue to act as a pump then in some circumstances --

25 A. For a little while, yes.

1 Q. Even after it is dead?

2 A. No. This is -- I question that term
3 "dead". When fire goes through the forest, it does not
4 kill trees all the time.

5 In other words, that it still can be in
6 its life or for a certain period of time which it is
7 able to draw water and keep it pumping. So, it is
8 temporarily. Eventually many trees die.

9 But what I tried to point out is that the
10 trees are not dying instantly after the fire goes
11 through.

12 There is lots of chemical activities
13 which is going for quite awhile until the -- cease to
14 exist or dries out; and then, of course, the process --
15 different processes take over.

16 Still, it decays and draws water. There
17 is still a function of water system going through even
18 dead trees, even dead trees. There is is a reservoir
19 of water which my circulate the water.

20 Q. In terms of taking it up from the
21 soil?

22 A. Not taking out. It -- the
23 moisture -- fibre consists moisture, and this moisture,
24 of course, is being transpired still in the total
25 ecosystem.

1 Q. Oh, transpired out into the air?

2 A. Into the atmosphere, that's correct.

3 Q. All right. But then once water --
4 all right, I think I understand you, okay.

5 You said a number of times that the use
6 of herbicides is inconsistent with multi-purpose
7 forestry. I would like to know why.

8 A. Because there is a basic conflict
9 between multi-purpose forestry and, in other words,
10 serving all purposes and the use of chemical in form
11 herbicides and pesticides.

12 This conflict, of course, is inevitable
13 because the purpose of herbicides and the purpose of
14 pesticides is to kill or limit the function of a
15 certain part of the ecosystem itself.

16 And because ecosystem, as we know, is
17 very interconnected and very compress, that the
18 elimination or function of one part of this ecosystem
19 affects the function of the total ecosystem.

20 And, therefore, in multi-purpose
21 forestry, the use of chemical will affect the other
22 part, s and you have a conflict.

23 Q. Thank you. Could you, for the last
24 time, at least, for me, refer to Forests for Tomorrow's
25 terms and conditions 1416A

1 A. Yes, the prescriptions?

2 Q. Yes, sir. And let's turn to the
3 second page under 'black spruce working group'.

4 A. Under what?

5 Q. Black spruce working group.

6 A. Yes.

7 Q. In the last paragraph, we -- pardon
8 me, the third paragraph that we have under there, that
9 heading, is the one which refers to the the requirement
10 to have satisfactory regeneration to a standard not
11 less than 80 per cent stocking to black spruce before
12 we can cut the third group.

13 A. Yes.

14 Q. Right?

15 A. Yes.

16 Q. Would you agree with me, Mr. Marek,
17 that no results that we have seen documented for strip
18 cuts show 80 per cent regeneration or stocking to black
19 spruce?

20 We have have talked about it. You have
21 said that you have got it on yours--

22 A. Yes.

23 Q. --but we have no documented evidence
24 of that here so far during your evidence.

25 A. The evidence which was presented does

1 not show 80 per cent, correct.

2 Q. Okay. And could I have your
3 response, sir, to the suggestion that to require 80 per
4 cent in this term and condition is not reasonable based
5 on the documented evidence that we have reviewed?

6 A. Sir, would you put it more simply?

7 Q. All right.

8 A. The sentence you said, will you
9 shorten it up in such a way that --

10 Q. Sure. Respond to this: I think it
11 is unreasonable that these terms and conditions should
12 require one to achieve 80 per cent stocking before he
13 can cut the last coupe when we haven't seen any
14 documented evidence that you can actually achieve 80
15 per cent through natural regeneration.

16 A. I don't agree with it; no, I don't
17 agree. This evidence which was presented was a
18 selective one. Some of the documentation obviously
19 lead you and representatives of the industry feel that
20 indeed, I cannot show that 80 per cent cannot be
21 achieved. I disagree with it completely.

22 Q. All right. Would you agree that if
23 it can be achieved, it certainly cannot be achieved in
24 all cases?

25 A. That may be the case.

1 Q. Thank you. Now, if someone goes --
2 let me give you a hypothetical situation, Mr. Marek,
3 and I am talking about the situation described here in
4 the third paragraph: That you have got the leave
5 strips standing there. You have had two coupes in a
6 three-coupe system.

7 A. Yes. In three-coupe system.

8 Q. Yes, in a three-coupe system.

9 A. Two are cut and one is standing.

10 Q. Right. And in the one that is
11 standing, you have got 70 per cent stocking.

12 A. Correct.

13 Q. And let's assume that it is
14 deteriorating, and if you don't harvest it, there will
15 be either a substantial blow-down or because of age, it
16 will turn into, what you referred to as, a junk forest.
17 It is going to start breaking up. Balsam fir is going
18 to start coming back in it.

19 A. Yes.

20 Q. In that situation, would you be
21 permitted to cut it before it got the 80 per cent
22 stocking that is referred to in this term and
23 condition?

24 A. Yes.

25 Q. You made a comment about encountering

1 junk forests, unacceptable forest, which had not even
2 been logged, but because they hadn't been reached, they
3 were starting to break up.

4 A. That's right.

5 Q. And when you encounter a situation
6 like that, Mr. Marek, could that condition of the
7 stand, the age of the stand, which was causing that
8 situation be the basis for departing from the term and
9 condition which limits cut size?

10 A. Madam Chair, we have discussed this
11 situation on several occasions.

12 Q. Not that one, I don't think.

13 A. I said, in case of calamities, in
14 case of deterioration which was beyond our -- surely,
15 the forester have a choice as to salvage.

16 But, Madam Chair, may I point one very
17 important aspect of this? As long as the industry will
18 be prevented for one reason or another to salvage
19 blow-down, which is a case right now -- industry is
20 hesitant to salvage any blow-down because they haven't
21 got the technology, because of the safety factors, for
22 many, many reasons, they do not -- or try to avoid
23 salvage of blow-down.

24 Sir, I think it is time that industry
25 will initiate technology and effort with efforts to

1 harvesting and utilizing any blow-down or any damaged
2 timber which is in the area.

3 Q. Okay. And I understand that. And in
4 some cases, I think when you described this area, the
5 situation where you throw up your your hands and say,
6 'what are we going to do'--

7 A. That's right.

8 Q. --there would have been some timber
9 which would have blown down. And in the spaces, this
10 is where we had the balsam fir coming back, and that
11 was the thing that you didn't want?

12 A. That's correct.

13 Q. All right. And you just made a
14 comment that, 'yes, the forester should be allowed to
15 do that', and you referred to natural calamity.

16 And can I refer to you page 4 of these
17 terms and conditions?

18 A. Yes.

19 Q. Where you have at the bottom a
20 heading 'silvacultural exceptions'.

21 A. Yes.

22 Q. And you say that:

23 "An exception to the silvicultural
24 standard set out in Section 2(1) may be
25 approved if, one, an area has been

1 significantly affected by natural
2 calamity, ie. blow-down, insects, et
3 cetera"--

4 A. Yes.

5 Q. --"and a salvage cut is required" --

6 A. Yes.

7 Q. I take it from your evidence that et
8 cetera would include a situation where the stand was
9 breaking up due its age; is that correct?

10 A. That should be the priority; in other
11 words, these stands should be -- the condition of these
12 stands should be recognized and action taken to prevent
13 further deterioration or waste.

14 Q. Right. And where that occurs, if you
15 had a large stand of such timber--

16 A. Yes.

17 Q. --larger than the cut sizes referred
18 to in two -- in the prescriptions which we have
19 referred to, then I interpret this exception by Forests
20 for Tomorrow to permit the harvesting of an area larger
21 than the sizes referred to in 2(1) in order to get rid
22 that junk forest.

23 A. If you have -- exactly.

24 Q. Thank you.

25 A. If you have a condition, sir, where

1 no options are available to maintain the prescribed
2 operations, then, of course, in order to prevent the
3 waste, in order to utilize timber, we have to take a
4 drastic action.

5 Q. And the action that you would take,
6 would you agree with me, if you want to get rid of that
7 forest that is unacceptable forest to make sure that it
8 doesn't get any worse is that you would cut as much of
9 that down as you could?

10 A. Utilize as much as possible, of
11 course, yes.

12 Q. And I would suggest to you that you
13 could use a clear-cut method to deal with that?

14 A. Of course, when you have a severe
15 blow-down, your only choice is to clear-cut and then
16 plant, I suppose.

17 Q. All right. Now, when you prepared
18 these terms and conditions or had a hand in playing --
19 preparing these, if these terms and conditions are
20 imposed as they are worded, Mr. Marek--

21 A. Yes?

22 Q. --what understanding, if any, do you
23 have regarding the implications for a forester who does
24 not follow them?

25 A. Oh, sir, here goes again the swan

1 song of ability of the forester and the management
2 planning procedures, the management plan itself.

3 I do feel strongly that this kind of
4 quantification of action taken in any condition should
5 be based on this reasonable explanation in the timber
6 management planning, the follow-up, the risks, and the
7 concern of wellbeing of the forest, which we do not
8 have right now.

9 Q. Would you want a forester to be
10 subject to being charged and convicted under a
11 provincial statute if they doesn't didn't follow to the
12 letter what a term and condition said?

13 MS. SWENARCHUK: Madam Chair, could we
14 some indication of what provincial statute that would
15 be?

16 MR. FREIDIN: The Environmental
17 Assessment Act. If these are imposed as terms and
18 conditions, it is the Ministry's position that they
19 become the law; and if you breach them, you could be
20 charged under that statute and convicted for breach of
21 the term and condition.

22 And that is that is why I am asking the
23 question, whether this witness knows that or believed
24 that to be true when he had an input into these terms
25 and conditions.

1 THE WITNESS: Madam Chair, can I say my
2 personal opinion on this?

3 MADAM CHAIR: Go ahead, Mr. Marek.

4 THE WITNESS: I think we shouldn't ask
5 for unreasonable things. In forest management is an
6 action and reaction of people. I think it is very
7 important to realize that even foresters are people.
8 And look at us, we are split on many issues, how to do
9 it, where to do it, and so on.

10 I think the goals and objectives which I
11 stated in my statement to you are showing us very
12 clearly that you have objectives or goals which are
13 strictly financial, economic.

14 On the other hand, the goals or
15 objectives maybe have a multi-purpose forestry which
16 will put a kind of different view on forest itself, its
17 utilization, its uses, benefits to the mankind.

18 And I think it is very important to
19 realize that our politicians, when they are going to
20 talk about this subject which you have just suggested,
21 sir, that if you going to paralyze foresters or put
22 them in a jail or concentration camp, it does not
23 exist.

24 We should have a prescription and a
25 forest policy which will put the human aspect into

1 forestry, which I don't think we do now, sir.

2 And Madam, I think it is time that
3 perhaps from now on or perhaps after you publish your
4 recommendation and go to the government, going to
5 stress the fact that forestry is a human endeavor,
6 which goal and objective should be, No. 1, better
7 understanding of the forest and its utilization. And I
8 think the most important play in it should be the
9 forester himself.

10 If this will not happen, I feel that we
11 are running into the situation where complete chaos in
12 forest management will occur and we have a part of this
13 chaos right now. We are starting competing about
14 forest. And different goals and objectives are stated
15 many times and it is shown very clearly during your
16 hearings.

17 There are different goals and objectives,
18 and we have to weigh these things, come with
19 reasonable, reasonable forest philosophy, which Mr.
20 Freidin will put forester not in a position that he
21 will be put in the jail and will properly manage the
22 forest lands.

23 MR. MARTEL: Mr. Marek, how many civil
24 servants have you seen put in jail for violations of
25 any number of acts over any number of years except

1 theft?

2 THE WITNESS: Talking about where?

3 MR. MARTEL: Yes, I am talking about
4 Ontario. How many civil servants have you seen put in
5 jail for anything except maybe theft of the government?

6 THE WITNESS: No, I don't see our
7 utilitarian we are going to put people in jail for
8 cutting timber.

9 However, Mr. Martel, may I point to you a
10 specific law in Europe and in other parts of the world
11 where the forester, with his responsibility, may get
12 into trouble.

13 And look at what I stated to you two,
14 three weeks ago, where overcutting and mismanagement
15 can lead to heavy penalties.

16 MR. MARTEL: But we have never had that
17 in Ontario.

18 THE WITNESS: No.

19 MR. MARTEL: We have seen violations of a
20 variety of sorts, whether in forestry cutting too much,
21 not scaling enough, wood wastage; it is all there. I
22 mean, I just don't know anybody who has gone to jail
23 for any of it.

24 I mean, I find the proposition being put
25 forward a little hard to swallow quite frankly.

1 MADAM CHAIR: Mr. Marek, I think the
2 proposition is a bit much, a bit extreme, but I think
3 the situation is this: You are asking the Board to
4 look at your plan for managing forests, and you are
5 telling us this is a better way to do it and you have,
6 in your opinion, good reasons for making these
7 suggestions and you would like the Board to accept this
8 and you would like us, in our final decision, to say
9 this is a condition of operating in the forest.

10 Now, a few years down the road, and let's
11 say we did that -- let's make, hypothetically we did
12 that. We said, yes, we like these conditions and we
13 are going to put them into place.

14 A few years down the road, or five years
15 or whatever, everything is re-examined and another look
16 is taken to see how the forest -- timber management has
17 improved. And someone makes the accusation, that, in
18 fact, foresters have been working with Marek's
19 silvicultural guidelines, but in fact, they keep saying
20 is an everything is an exception to what he said.

21 They know they are supposed to do natural
22 regeneration. They know they are supposed to keep
23 clear-cuts small in size, but every situation they run
24 into in the bush, they say, 'well, that is an
25 exception. He didn't mean for me to follow his

1 prescription when I ran into this kind of a situation'.

2 I don't think it is a matter of every
3 word having to be precise in this sort of thing, but I
4 think there is a dividing line that is certainly in all
5 the discussions we have had before this Board.

6 It is clear to Mr. Martel and me that
7 there is confusion among everyone about how flexible
8 you can be and how much you have to stick to a rule.
9 And I think maybe there are some areas that still need
10 a little more definition.

11 THE WITNESS: Yes, Madam, I agree with
12 you. On the other hand, we have a problem, what are
13 you going to call good, proper, scientific forest
14 management?

15 I think that we should realize the world
16 is changing. We should realize that forestry will have
17 to change with it. The forest is more important now
18 than ever to all of us.

19 And I think that forestry in general,
20 they don't realize that forestry practise is going to
21 have to change. And that's not only in Canada. It is
22 all over the world, Brazil, I don't know where. That
23 the forester have these kind of protective roles to
24 play.

25 What do I mean by protective role of

1 forestry, Madam?

2 MADAM CHAIR: I think we have a fairly
3 good idea about what you mean. And, in fact, we have
4 never had a forester come before this Board and argue
5 that he or she wanted to conduct bad forest practices.

6 THE WITNESS: Exactly.

7 MADAM CHAIR: We don't have that kind of
8 evidence. Foresters, generally, would like to conduct
9 good forest operations.

10 THE WITNESS: But still the goals and
11 objectives may differ, Madam, and that is my lesson
12 that I have learned since I was a little boy,

13 That the goals in forestry may change
14 depending on -- on what, profits? On certain specific
15 products we like to have it from forest moves,
16 whatever.

17 So, in other words, we are looking at the
18 forest obviously a different way as we looked at it 40
19 years ago. I know the difference because I have
20 studied forestry in Canada with the knowledge from
21 Europe.

22 And I will tell you, Madam, that this
23 kind of protective role is still misunderstood in this
24 country because forestry is a new science, because we
25 are dealing with such a mammoth of the area which is

1 beyond comprehension.

2 Madam, three years ago, when I went to
3 clay belt and I looked at the pile of black spruce -- I
4 don't to mention the company -- I asked the manager, I
5 said, 'that pile started here was 40 feet high and too
6 bad I didn't draw it to your attention.' It was 40
7 feet high and it was mile and a half long and there
8 were several of these piles.

9 I said to a friend of my forester, I
10 said, 'how long this or what' -- no, 'how long is this
11 going to last? What kind of program you have with this
12 pile of wood?' He says, 'this is only two months or
13 three months, I think, requirement of the mill.'

14 In other words, when you talk about the
15 vast area which are being cut, the vast area -- which
16 is beyond comprehension really, believe me or not. I
17 am working for 40 years there is no end to it
18 sometimes.

19 One realizes that indeed, the requirement
20 on the forest land in Canada are just out of this
21 world. I think the only other country that can
22 duplicate this and that is Siberia, and I know soviet
23 forestry; the vastness of it, the requirements of it
24 are tremendous.

25 How should we manage it? By good

1 forestry, proper forestry or should we look at it as
2 one total system which affects the total world? And we
3 are part of the big world.

4 MADAM CHAIR: Yes, I think that there are
5 no disagreements, Mr. Marek, with respect to everyone's
6 objective to improve forest practices.

7 All I would ask you to do, and this is in
8 respect to Mr. Freidin's question, is that when your
9 testimony is over to the Board and there may be some
10 further negotiations or discussions with Ms. Swenarchuk
11 and yourself and others on Forests for Tomorrow's team,
12 that you give further consideration to wordings so that
13 it is very clear in your mind what you want people to
14 do with these silvicultural prescriptions.

15 MS. SWENARCHUK: Madam Chair, I don't
16 want to take a lot of time. I do want to object
17 formally to the wording and the tone of Mr. Freidin's
18 question. I think it was quite inappropriate to place
19 that sort of presumed responsibility on this witness.

20 Certainly, I want to make it clear to you
21 now with respect to the remainder of Forests for
22 Tomorrow's case, I take -- I certainly take your point
23 that there is a lack of clarity here.

24 MADAM CHAIR: I didn't say there is a
25 lack of clarity, but I just think that if the time

1 comes in a few weeks or months where changes are made
2 in wording and so forth, that it be done.

3 MS. SWENARCHUK: I want to let you both
4 know now that we have discussed that, and our view of
5 that is that we want to come up with the best possible
6 prescriptions.

7 And to the extent that hearing days are
8 spent in identifying problems with the wording, that
9 will be addressed.

10 I don't, however, propose to address it
11 panel by panel, but rather at the end of our case, we
12 will sit down and address the whole question then.

13 And furthermore, with regard to a problem
14 that you have in taking all of this into account, I
15 just want to remind you that we will be giving what
16 assistance we can for final argument, as well perhaps a
17 final revision of these when the case is finished.

18 MADAM CHAIR: That is fine, Ms.
19 Swenarchuk. I don't think we have to go any farther
20 with this.

21 I simply wanted to say that Board doesn't
22 find it really helpful to discuss in detail before it
23 wordings to certain matters. We have had enough
24 evidence from this witness as to what he means. And I
25 suggest that some of those details be sorted out

1 outside of the hearing room.

2 MS. SWENARCHUK: A suggestion we made as
3 well, Madam Chair.

4 MR. FREIDIN: All right. I hear you,
5 Madam Chair, but you would realize that these
6 prescriptions were just provided during panel No. 1.
7 And in my view, a very expeditious way of dealing with
8 that in the kind of detail that I submit that has to be
9 dealt with which is the forum that we are in.

10 That does not, of course, alleviate the
11 desirability of continuing those discussions.

12 MADAM CHAIR: Yes --

13 MR. FREIDIN: And I don't think this sort
14 of back and forth should be avoided. I think it is
15 very helpful, at least from my perspective.

16 MADAM CHAIR: It is most helpful for the
17 Board at this point if you discuss it among yourselves.

18 MR. FREIDIN: I hear you.

19 Q. Mr. Marek, if the Board does not
20 accept Forests for Tomorrow's recommendation that
21 certain areas be set aside for the single purpose of
22 high timber production, as you have discussed, is it
23 Forests for Tomorrow's position that no planting would
24 be permitted anywhere in the area of the undertaking
25 except where natural reregeneration was attempted and

1 failed?

2 A. This is a deep subject, Mr. Freidin,
3 and I just will be guided by a reasonable -- of the
4 Board chair here and leave it for further discussion
5 between --

6 Q. Well, that is one that I think is
7 extremely important that I want the answer to now;
8 because if it is otherwise, then as the witness on
9 behalf of Forests for Tomorrow who has put this
10 position forward, I am going to require cross -- to ask
11 you questions.

12 So I will repeat the question, sir: If
13 the Board does not accept Forests for Tomorrow's
14 recommendation that certain areas be set aside for the
15 single purpose of high timber production, is it Forests
16 for Tomorrow's position that no planting would be
17 permitted anywhere in the area of the undertaking
18 except where natural regeneration was attempted and
19 failed?

20 THE WITNESS: If, if, if.

21 Madam Chair, do you insist that I answer
22 this question?

23 MADAM CHAIR: Why don't we take it apart
24 a bit and look at the situation where it might not be
25 such an easy matter to carve up the province into

1 intensive plantation areas?

2 Let's say that is an objective that
3 someone wants to move towards and it will be many years
4 before you get there.

5 In the meantime, I don't think in your
6 evidence, Mr. Marek, you have precluded planting in
7 multi-purpose forests.

8 THE WITNESS: No, I didn't.

9 MR. FREIDIN: He has precluded it in all
10 situations; you have to try natural first, and only if
11 natural regeneration fails are you allowed to use --

12 MADAM CHAIR: No. Mr. Marek's evidence
13 before the Board that Mr. Martel and I have received
14 and discussed is, that if the forester assesses the
15 situation, looks over the silvicultural prescriptions
16 very carefully, says to himself, 'I have operated in
17 that area. I know that natural seeding simply will be
18 unsuccessful or natural regeneration' and he has
19 evidence from his own experience there and he has a
20 rationale for saying, 'I can't do that', then he would
21 plant without waiting for a natural regeneration to be
22 failure.

23 MR. FREIDIN: My client would be quite
24 content with that. That is not what I understand Mr.
25 Marek's evidence, and I think we should clarify that

1 before I end my cross-examination.

2 MADAM CHAIR: Is that the case, Mr.

3 Marek?

4 MR. FREIDIN: Which -- yeah.

5 THE WITNESS: Again --

6 MR. MARTEL: Let me just add before you
7 start, wasn't it going to be based on what you get in
8 specific areas when you are drafting the prescriptions
9 that you -- in most of the area, you perceive you are
10 going to get this based on past experience.

11 But before you make any decision, you
12 have to review all of that.

13 THE WITNESS: Of course.

14 MR. MARTEL: And then come to some
15 conclusion.

16 THE WITNESS: It is a steady process
17 of -- you know, you look at the -- that is why forestry
18 is a science; it is not just the farming. There is
19 more to it than just farming.

20 A farmer decides with this area he is
21 going to plant oats and he is going to plant this. In
22 forestry, you have to consider many other aspects.
23 That is why it is so complex.

24 And what bothers me here, again, that we
25 are trying to carve something permanently in this. Mr.

1 Freidin says he will not be satisfied. I am perfectly
2 satisfied to look at all these prescriptions together
3 again, with a, of course, involvement of public and
4 say, 'will public accept, for instance, intensive
5 management in that area, forester seal the productivity
6 for future forest'?

7 I could give you a concrete example. The
8 people in north shore communities adapt intensive
9 management. I don't know. Many of them feel perhaps
10 yes, some of them hold special benefits; some of those,
11 no.

12 But the purpose I am here today is to
13 give you options which will try to eliminate some of
14 these rigid conflicts which are being built up now;
15 that people say, hey, simply here and doing something
16 which contravene basically the other aspect, what I
17 like to have.

18 And we have to depart, I suppose, from
19 the rigid position we have right now that you are going
20 to spray wherever you plant, and that perhaps answers
21 your question.

22 What we have here -- if you are going to
23 start planting trees and establish plantation, you will
24 be inevitably faced with some kind of intervention of
25 tending. And that, I have seen last 10, 15 years,

1 where we got into the production aspect of timber, that
2 everybody says, 'well, tending is absolutely
3 necessary', and I agree.

4 But will this tending by chemicals be
5 allowed in an area where, for instance, we are going to
6 have multi-purpose forestry? And you are going to say,
7 'no, no, no chemical will be used', and it will be
8 perhaps acceptable to the majority of people.

9 See, we cannot go like this forever, to
10 have our cake and eat it, too, have a multi-purpose
11 forest -- or they call it -- not multi-purpose forest.
12 We call it now multi-per use; where we are going to
13 say, we are going to have a moose and we are going to
14 have timber also.

15 Doing what? Partially crippling the
16 competition; partially only remove what the moose
17 needs. In other words, moose needs air, food, farm,
18 which is composed of every aspect. If you are going to
19 start killing it or try to eliminate it, immediately
20 you have a fantastic problem.

21 Q. Okay. Mr. Marek, let me put it this
22 to you and tell me whether you agree or not: Is it
23 Forests for Tomorrow's position that in what you have
24 described the as multi-purpose forests--

25 A. Yes?

1 Q. --that you do not have to attempt
2 natural regeneration first whether you are managing
3 black spruce, jack pine or any other species, if, in
4 the discretion of the forester, natural regeneration
5 will not be successful and that it is reasonable in
6 those circumstances to use artificial regeneration; and
7 by that, I mean, aerial seeding or planting first as
8 your first attempt at regenerating the site?

9 A. First attempts got you --

10 Q. Without trying natural?

11 A. Well, this is -- I think this has
12 been clarified. I said in multi-purpose forestry, you
13 have to try natural regeneration first.

14 MR. FREIDIN: There you go. There is the
15 conflict, Madam Chair.

16 MADAM CHAIR: Okay. Mr. Marek --

17 MR. FREIDIN: If you can help me, I would
18 be helpful.

19 MADAM CHAIR: I think what the Board's
20 understanding is, Mr. Marek, when you say you have to
21 try natural regeneration first--

22 THE WITNESS: That's correct.

23 MADAM CHAIR: --we thought you told us a
24 few days ago that it was the consideration of natural
25 regeneration that the forester would analyse the

1 possibilities that he or she could regenerate
2 naturally. They wouldn't do it off the cuff.

3 They would look at their past operations.
4 They would look at their experience, and they would
5 say, 'there isn't a 10 per cent chance that this area
6 can regenerate naturally. I know that because I am an
7 experienced forester', and whatever else would go in
8 the analysis. Those are all ideal conditions.

9 But, could that forester then say, 'I
10 know I can't regenerate naturally and I know if I wait
11 to see what happens with natural regeneration, I will
12 be five or ten years behind in beginning to rebuild
13 this forest'?

14 With that kind of analysis, could the
15 forester say under your proposed scheme, 'I can't do
16 natural regeneration. I have no choice but to do
17 aerial seeding or planting'?

18 THE WITNESS: You said "if, if", and it
19 is clarified in the prescription here, Madam, if you
20 have a natural catastrophe of a condition of the stand
21 in multi-purpose forestry area, when a forester sees
22 that natural regeneration cannot be accomplished
23 efficiently, the condition do not allow it, of course,
24 he got to bring that forest back in what other way,
25 which may be all kind of other prescription, including,

1 as Mr. -- plant the trees.

2 I think what has been cleared. At least,
3 I feel comfortable is that throughout the whole
4 hearing, why I am here, that the option of what --

5 MR. FREIDIN: Q. Mr. Marek?

6 A. Yeah, I know what you are pointing
7 out, Mr. Freidin; you are telling me that maybe
8 forestry is going to say, it is a multi-purpose
9 forestry and I want to plant trees period, period.

10 Q. And I am suggesting that a forester
11 may, in fact, believe that it is necessary to plant or
12 aerial seed for the reasons indicated by Madam Chair,
13 in a situation other than the ones which you describe
14 as calamities where you have blow-down, where you have
15 had insects and bugs going through.

16 A. Overmaturity they tell me.

17 Q. And overmaturity.

18 And I take it -- I took it from your
19 evidence that you were saying no way, in the
20 multi-purpose forest, unless you have got one of those
21 calamities, you must use natural regeneration, try it,
22 actually try it on the ground and see what happens
23 first; and only if after observing your attempt that it
24 failed, you could use artificial regeneration.

25 What I am indicating is that when you

1 were using the word "try", you weren't talking about
2 considering. You were talking about trying, actually
3 going out in the field and waiting to see whether you
4 got natural. And I really want to get this clarified.

5 And so, do you want me to repeat the
6 question again?

7 A. No, you don't have to because I
8 understand very well what you mean, Mr. Freidin. I
9 understand.

10 You are talking the position of MNR and
11 industry which feels very strongly about artificial
12 regeneration of any kind.

13 Yes, please --

14 Q. I am just trying to get your -- I am
15 trying to understand to the position of Forests for
16 Tomorrow.

17 There has been a confusion in terms of
18 the understanding of your evidence, at least between
19 Madam Chair and what I understood you to mean.

20 I just heard you say that basically you
21 agreed with what I understood your evidence to be, and
22 I want this confusion ended before I have an
23 opportunity to ask you for clarification. It is your
24 evidence, sir.

25 MR. MARTEL: Can I ask a question?

1 MR. FREIDIN: Yes.

2 MR. MARTEL: Because we are not making
3 any headway.

4 MR. FREIDIN: Well --

5 MR. MARTEL: Why -- I guess what I want
6 to know is, why -- until you have considered all the
7 factors and once you have considered all the factors,
8 why, if natural regeneration was going to occur, would
9 you want to regenerate artificially?

10 Let me just put it the other way: I
11 mean, you see we have got two positions; one MNR's, I
12 think and I might be wrong, saying 'I want the right to
13 cut, to site prepare, to plant, to seed, and to go out
14 and tend'.

15 MR. FREIDIN: And to use natural
16 regeneration if it will work.

17 MR. MARTEL: But you just true the caveat
18 in, you see.

19 And I am saying the position I thought we
20 had with Mr. Marek was one my colleague gave to you;
21 after considering all the factors, I don't think I
22 heard Mr. Marek say you are going to sit around for
23 five years to wait to see if that site is going to
24 regenerate.

25 The question I want to put in the hopper

1 then is: Why would you even consider other than
2 natural regeneration, unless --

3 MR. FREIDIN: You are right. Why would
4 you consider anything other --

5 MS. SWENARCHUK: Excuse me, could we hear
6 the end of this question?

7 MR. MARTEL: Why would you consider
8 anything other than natural regeneration if the chances
9 were that it was going to work?

10 I mean, why would you consider --

11 MR. FREIDIN: Well, you can ask that
12 question of an MNR witness in reply.

13 MR. MARTEL: Well, I am asking it because
14 it is the position that both of you are taking.

15 MR. FREIDIN: No, sir.

16 MR. MARTEL: That the one question that
17 is not being answered is: Why would you consider
18 anything else unless all the factors say that the only
19 way you are going to get this back to a forest is if,
20 in fact, you have to regenerate artificially?

21 MR. FREIDIN: Mr. Martel, I invite to you
22 put that question directly to a MNR witness in reply
23 and you will get an answer to that.

24 I also suggest to you that it is not a
25 cut-and-dried. You might know --

1 MR. MARTEL: I didn't say it was.

2 MR. FREIDIN: This is all I am saying to
3 Mr. Marek: You might consider it and somebody might
4 consider you will get some natural regeneration, but it
5 will only give you 35 per cent stocking if you wait
6 awhile, and then maybe three or four years later in,
7 you can go and plant.

8 And some forester in that situation might
9 say to himself or herself, 'gee, natural
10 regeneration -- you will get some natural regeneration
11 here, but it just isn't going to be up to snuff. The
12 site is going to change if I wait three or four years.
13 The only reasonable thing for me to do, as far as I am
14 concerned, is to go in there initially and use
15 artificial regeneration'.

16 And all I am saying is, is I understand
17 this witness' evidence. He has taken that discretion
18 away from the forester and he is saying you can't do
19 that. That's how I interpret his evidence.

20 MR. MARTEL: Well, wait, whoa, whoa.

21 I don't quite see is that way because any
22 forester worth his salt isn't going to accept 25 or 30
23 per cent regeneration. He is going to say, 'wait a
24 minute, I have got to get this back to a higher
25 stocking and 30 per cent isn't going to be adequate.

1 So I have to use my professional judgment in
2 determining what I am going to get it back to. And if
3 it is not going to go beyond the 30 per cent, then I
4 better do something other than rely on natural
5 regeneration; otherwise I am in big trouble as a
6 forester'.

7 MR. FREIDIN: And my question to Mr.
8 Marek is: Can the forester, in fact, make that
9 decision and follow up on it immediately after he
10 harvests?

11 THE WITNESS: No, you cannot do it after
12 harvest because you have to see results of the natural
13 regeneration first.

14 MR. FREIDIN: There you go, Mr. Martel.
15 He says you have got to try. You can't make that
16 decision.

17 I think his evidence is clear, that you
18 have to attempt it first and you have got to wait and
19 see what you have got.

20 Q. And my question then becomes this:
21 If the Board does not accept Forests for Tomorrow's
22 recommendation that certain areas get set aside for
23 intensive management where you can go in and you can
24 plant and use your herbicides, is it Forests for
25 Tomorrow's position -- maybe I have got the answer.

1 Let me put it again: Is it Forests for
2 Tomorrow's position that no planting would be permitted
3 anywhere in the area of the undertaking except where
4 natural regeneration was actually attempted; you
5 waited, you watched to see what happened and it failed?

6 Do I understand Forests for Tomorrow's
7 position correctly or not, sir?

8 A. You didn't answer Mr. --

9 Q. Answer my question, please.

10 A. Okay. Look here --

11 MS. SWENARCHUK: Can I point just point
12 out one difference that has gone on in this entire
13 discussion, and this is for purposes of clarification,
14 Mr. Marek?

15 Mr. Freidin has now restated his original
16 question, a perfectly fair question.

17 MR. FREIDIN: It was exactly the same. I
18 have written it down and I have read it exactly the
19 same every time.

20 MS. SWENARCHUK: Yes, it is a fair
21 question. It is a different that then became most of
22 the discussion, okay.

23 Most of the discussion turned upon these
24 silvicultural prescriptions and were they to be
25 implemented and involved once again a discussion by Mr.

1 Marek of multi-purpose versus intensive management
2 areas.

3 And I just want to clarify for your
4 benefit, Mr. Marek, that Mr. Freidin's question is
5 different than that, okay? We are talking now about a
6 situation in which the distinction between
7 multi-purpose and intensive management areas would not
8 exist.

9 MADAM CHAIR: Does not exist.

10 MS. SWENARCHUK: Okay.

11 THE WITNESS: So where are we?

12 MR. FREIDIN: Q. Are you able to answer
13 the question?

14 Could I have an undertaking to have the
15 question answered? I would like an answer now. I
16 mean, he is proposing it --

17 MADAM CHAIR: Let's give Mr. Marek an
18 opportunity. The question as it now stands, Mr. Marek,
19 is this, and that question is: If this Board said no,
20 we are not going to divide the province up into
21 multi-purpose forests and intensive --

22 THE WITNESS: In two areas.

23 MADAM CHAIR: -- it is going to go on
24 the way it is?

25 THE WITNESS: Yes.

1 Would you still -- but let's say the
2 Board accepted some of your conditions and the one
3 condition being, that foresters must consider natural
4 regeneration as the first objective of a silvicultural
5 prescription, would you in that situation see the
6 forester always looking at natural regeneration first
7 and always -- and then the second part of it is, does
8 he always try natural regeneration in the field and
9 wait for the results, or can he he have the discretion
10 of deciding not to naturally regenerate as a first
11 step?

12 THE WITNESS: May I repeat the goal? May
13 I repeat the goal? The goal of this presentation here
14 is that I believe and I strongly suggest the vision of
15 our forest productive maximization of timber in order
16 to satisfy the mills, multi-purpose forest for
17 everybody, multi-purpose.

18 Under these conditions, I have written or
19 helped to write these prescriptions: If the Board will
20 find that the implementation of multi-purpose forest or
21 this division in multi-purpose forestry and intensive
22 forest is still acceptable and will disagree with it,
23 then I have to get together or have to have people
24 approach me as a consultant to work out prescription
25 fitted for the --

1 MR. MARTEL: For the moment.

2 THE WITNESS: That is it.

3 MR. MARTEL: In other words, everything
4 is contingent on accepting the two proposals?

5 THE WITNESS: Exactly.

6 MR. FREIDIN: All right.

7 MADAM CHAIR: Is that clear, Mr. Freidin.

8 MR. FREIDIN: His answer is clear, and I
9 am not going to pursue that particular question any
10 longer, but I do have another one.

11 At the moment, the term and conditions of
12 Forests for Tomorrow do not expressly provide for
13 designating areas for high volume timber production,
14 intensive management, multi-purpose forestry.

15 And through you, Madam Chair, I would
16 like to ask Forests for Tomorrow whether we can expect
17 Forests for Tomorrow to be amending its terms and
18 conditions to make that position clear.

19 I think that is a fair question in the
20 circumstances and I would like Forests for Tomorrow to
21 advise whether, in fact, we are going to see this
22 proposal which has come through their witness to divide
23 the province; we are going to see that in their terms
24 and conditions because it is not expressly stated here.
25 It has come up during the discussion of what intensive

1 and extensive means within their terms and conditions.

2 MADAM CHAIR: Ms. Swenarchuk?

3 MS. SWENARCHUK: Well, we think the
4 concept is there in the discussion of extensive and
5 intensive silvicultural. Panels to come including Mr.
6 Benson of Panel 5 and the economists in Panel 7 will
7 be -- and in terms of the managing approach, the
8 forester who will testify in panel 10 will be
9 developing this concept.

10 As I said, at the end of it, if it
11 appears to us that the whole matter needs to be stated
12 more clearly, that will be done.

13 MR. FREIDIN: Well, with the concept
14 being there, I would like to know before this
15 witness -- before I finish my cross-examination of
16 this witness.

17 I am assuming the answer is 'yes' because
18 it is their witness; that Forests for Tomorrow adopt
19 and are recommending to this Board through its witness,
20 Mr. Marek, that the area, in fact, of their undertaking
21 be divided into intensive areas and multi-purpose areas
22 as he has stated.

23 Now, surely this witness has got -- has
24 been here. He has spoken to terms and conditions. He
25 has been involved in it. It doesn't expressly state

1 that, and I would like to have an answer more
2 definitive than 'while the concept is there'. I want
3 to know whether, in fact, they adopt that evidence and
4 that is what their terms and conditions are going to
5 say; because if its otherwise, I have lots more
6 questions for this witness.

7 MADAM CHAIR: Ms. Swenarchuk, is it a
8 formal proposal by Forests for Tomorrow that the Board
9 consider the application of intensive versus
10 multi-purpose forest management in some geographical
11 sense to the area of the undertaking?

12 MS. SWENARCHUK: Madam Chair, frankly,
13 different witnesses have different terminology for the
14 same concept.

15 Mr. Freidin doesn't like the terminology
16 and doesn't think that the terminology that we used to
17 this point expresses in words that are satisfactory to
18 him the concept that Mr. Marek has described. I am not
19 in a position to say in what file and form the concept
20 will be expressed.

21 I reiterate my further position that in
22 our view, that paragraph sets out the essential
23 concept, and I will repeat what I said earlier: That
24 if at the end of the day it appears to us that matters
25 need to be expressed more clearly for the assistance of

1 the Board, they certainly will be. It appears that
2 that is the case. In what exact form they will be
3 expressed, clearly, I am in no position to state at
4 this time.

5 But I would merely, for the benefit of
6 Mr. Marek and all of us, remind Mr. Freidin once again
7 that Mr. Marek is not the only witness who will be
8 addressing this subject and perhaps questions could be
9 reserved for the next, please.

10 MR. FREIDIN: Madam Chair, I don't
11 believe your question was answered. I don't think we
12 should have to wait until the end of the day to see
13 what all the other witnesses say.

14 We have got and a witness here who is
15 putting forward the position on behalf of Forests for
16 Tomorrow. Forests for Tomorrow must know what position
17 they want. I mean, I have got to have something
18 concrete to deal with in terms of terms and conditions.
19 That's why the Board has said that there should be
20 terms and conditions so we can find out finally what
21 the position of other parties are so we can examine
22 them and question them on it.

23 Ms. Swenarchuk has not, in my respectful
24 submission, addressed my concern adequately by saying
25 'if at the end of the day, we will change the form'.

1 My question is not in any way tied to the
2 terminology. Does Forests for Tomorrow -- I will
3 change the question -- adopt the concept? Are they
4 recommending the concept to this Board of setting aside
5 areas for single-purpose high timber production or not?

6 It is as simple as that. Their witness.
7 Surely we all deserve an answer to that question now.

8 MADAM CHAIR: Ms. Swenarchuk, certainly
9 we have Mr. Marek's opinion; and his opinion is so far
10 as the Board can tell is that, yes, that would be a
11 better way to manage timber resources in Ontario.

12 Are you telling the Board that at some
13 point during your case or at the conclusion of your
14 case, you may be adding to the opinion of Mr. Marek and
15 you might possibly be accepting some aspect of this as
16 part of your overall proposal to the Board?

17 MS. SWENARCHUK: I frankly don't see the
18 difficulty that Mr. Freidin has.

19 Mr. Marek has appeared as a witness for
20 Forests for Tomorrow. Forests for Tomorrow adopts Mr.
21 Marek's testimony clearly. There cannot be any
22 question of that.

23 Now, I don't know what Mr. Freidin needs
24 beyond that. I have attempted to assist you to the
25 point -- to the extent of saying that, to the extent it

1 appears the Board needs greater clarity in the
2 terminology to be used -- this is only part of our
3 terms and conditions -- that that will be provided.

4 MR. FREIDIN: But is Forests for Tomorrow
5 going to change their terms and conditions so that it
6 does not reflect the position put forward on Mr. Marek
7 that we should set aside these different areas?

8 Will it be changed --

9 MADAM CHAIR: Well, Mr. Freidin, you have
10 only got another week to wait.

11 What is the deadline for the final terms
12 and conditions being submitted?

13 MR. FREIDIN: It is tomorrow.

14 MS. SWENARCHUK: Tomorrow. Let -- are we
15 going to change terms and conditions so as not to adopt
16 Mr. Marek's testimony? Clearly not. Why would we
17 bring him here if that were the case?

18 MR. MARTEL: As I sit here listening, I
19 am not sure what we are being asked -- how we are
20 expected to -- or what category to put all this
21 material in.

22 Is it that Forests for Tomorrow is saying
23 specifically, we want two types of forests because, in
24 fact, you will get the fibre that the industry needs
25 and you will resolve the difficulty of all the other

1 multi-purpose users, the other stake holders?

2 I mean, it is much easier if one were to
3 look at it in that light, I would think, if it were
4 possible because then the conflicts disappear, or a lot
5 of member them, the majority of them, I think, would
6 disappear than if you are saying, well, you have to
7 consider the whole forest as one and you have to work
8 in all of those other user groups.

9 And we are looking at things totally
10 different depending on the terms and conditions being
11 requested; one much easier to deal with if it is
12 workable than the second one, the one we originally
13 started looking at which considered everybody and the
14 integrated resource.

15 I mean, I am not even sure you need the
16 integrated resource management as much if you move to
17 two forests. I mean, that is the difficulty as I sit
18 here listening to the information.

19 MS. SWENARCHUK: This is a theme that
20 will undoubtedly persist throughout the evidence to be
21 presented by Forests for Tomorrow.

22 I am sorry to disappoint you, Mr. Martel.
23 I don't think that developing this concept
24 province-wide will eliminate conflicts at all because
25 there will still be -- and this is the essential thrust

1 of Forests for Tomorrow's case -- we are looking at a
2 much more fundamental -- a fundamentally changed
3 approach to land use planning for forest land, and that
4 is the consistent element of our case.

5 And I -- the questions you are raising
6 are questions that will be raised throughout our case.
7 And I, therefore, say, we will attempt at the end of
8 that case to provide you with the best clarification we
9 must, we can, if it is necessary, rather than trying to
10 do it step by step because it is exactly, you know, a
11 concept overall that is different than what you heard
12 for two and a half --

13 THE WITNESS: Exactly.

14 MR. MARTEL: But you would agree, though,
15 that the conflicts that remained if we were getting
16 almost enough wood to meet industry's need from the
17 area you intensively manage, that the other areas that
18 you have multi-use, it would be much easier to skirt
19 around the lake and say that, 'AOC is much easier to
20 deal with. We will just leave a buffer and we will
21 enlarge it. We will leave things around certain lakes
22 that are much larger, the reserves'. I mean, it
23 depends on --

24 MADAM CHAIR: Well, certainly we don't
25 have any evidence that the non-timber users are united

1 in their opinions of--

2 MS. SWENARCHUK: Absolutely.

3 MADAM CHAIR: --how they would want to
4 use the forest. I don't think --

5 MR. MARTEL: But the conflicts would be
6 easier to resolve.

7 MADAM CHAIR: Perhaps. I don't think
8 that we are going to answer -- we are going to resolve
9 this today.

10 And Mr. Freidin, you aren't going to get
11 every answer from this witness about where in the
12 forest of Ontario there would be an intensively managed
13 plantation versus a multi-purpose --

14 MR. FREIDIN: I don't intend to ask him
15 that.

16 MADAM CHAIR: Good.

17 So I think that Mr. Martel and I are
18 going to be discussing this between ourselves. And it
19 is clear to Ms. Swenarchuk that the Board is interested
20 in this matter and it is now her responsibility to
21 enlighten us and we are going to leave that for the
22 time being.

23 MR. FREIDIN: And Madam Chair, I would
24 ask that that enlightenment -- that the Board direct
25 that that enlightenment occur in a very short time

1 frame because with respect, when Ms. Swenarchuk says
2 the question will be raised throughout our case if it
3 is a concept overall, for my client to know what case
4 it is facing to deal with what Forests for Tomorrow
5 really wants and to question their witnesses on what
6 they really want at the end of the day, if this concept
7 is going to be part of what they are going to recommend
8 at the end of day -- and I don't care how they may lead
9 evidence on it through other witnesses -- if at the end
10 of the day this concept this witness has put forward is
11 part of their case, I want to know, I have to know, and
12 I think everybody here has to know.

13 And so, I would ask if the Board could
14 consider requiring Ms. Swenarchuk to provide this
15 clarification within a short time frame, perhaps on the
16 filing of the terms and conditions, and that we not
17 wait another three or four months to find out whether,
18 indeed, this important concept to Mr. Marek is or is
19 not going to be adopted by this party, Forests for
20 Tomorrow.

21 MS. SWENARCHUK: I invite Mr. Freidin to
22 read the wording of the terms and conditions and the
23 witness statements, specifically 5,7 and 10, and I
24 really do not at this time have anything to add to the
25 statements set out there. What will be added will be

1 through testimony.

2 MR. FREIDIN: Is that the clarification
3 that satisfies the Board, Madam Chair? I want to know
4 whether we are going to hear any more.

5 MADAM CHAIR: Well, Mr. Martel and I are
6 request going to discuss this, and I suggest that you
7 and Ms. Swenarchuk do outside the hearing room.

8 And if you feel you can't resolve this
9 and you can't wait until the end of Panel--

10 MR. FREIDIN: 10.

11 MADAM CHAIR: --10, then we will have to
12 set aside time to hear something about this.

13 MR. FREIDIN: Okay.

14 MADAM CHAIR: But I would like you two to
15 consult and get back to me.

16 MR. FREIDIN: Thank you very much. Those
17 are my questions, Madam Chair.

18 MADAM CHAIR: You are done, Mr. Marek.

19 MR. FREIDIN: No, not yet.

20 MADAM CHAIR: Oh, we have got
21 re-examination. You are done with cross-examination.

22 THE WITNESS: Mr. Freidin, with
23 reluctance, I will shake your hand.

24 MR. FREIDIN: With reluctance, okay. I
25 will take it any way I can get it. (Laughter)

1 THE WITNESS: You should come out on my
2 side and face my end.

3 MR. FREIDIN: Mr. Marek, we will have a
4 drink in your curling club one day. (Laughter)

5 MADAM CHAIR: Ms. Swenarchuk, do you want
6 to break early for lunch to prepare your
7 re-examination? I don't know how long you are going to
8 take.

9 MS. SWENARCHUK: My re-examination is
10 prepared.

11 MADAM CHAIR: Are you ready to go?

12 MS. SWENARCHUK: Yes, I am ready to go.
13 And I think I will just move over. And perhaps it will
14 take probably, I would think, in the vicinity of an
15 hour, so the question would be whether you prefer to
16 break now or go longer and

17 MADAM CHAIR: Well, the Board doesn't
18 care.

19 What is convenient for you?

20 MS. SWENARCHUK: I would prefer to
21 conclude now, if possible.

22 MADAM CHAIR: To?

23 MS. SWENARCHUK: To commence and conclude
24 now; that is, begin the re-examination immediately.

25 MADAM CHAIR: Oh. I don't think we are

1 prepared to sit until one o'clock to finish.

2 MS. SWENARCHUK: Oh, all right. Then
3 let's adjourn now.

4 MADAM CHAIR: All right. We will be back
5 in an hour and a half.

6 MS. SWENARCHUK: 1:15?

7 MADAM CHAIR: 1:15.

8 ---Luncheon recess at 11:47 p.m.
9 ---On resuming at 1:30 p.m.

10 MADAM CHAIR: Please be seated.

11 MS. SWENARCHUK: Madam Chair, Mr. Pascoe
12 passed around a letter which he said that you wanted to
13 make an exhibit.

14 MADAM CHAIR: Yes. Is this the letter we
15 received on November 13th, 1990 to the Board from Ms.
16 Paton Lodge Lindsay?

17 MS. SWENARCHUK: Right.

18 MADAM CHAIR: And the Board's response
19 through Mr. Daniel Pascoe has been sent out and it's
20 dated November 27th, and we will make this information
21 one exhibit. And the letter is 6 pages in length, and
22 a one page correspondence from the Board. And this
23 will be Exhibit 1500 and...

24 MS. SWENARCHUK: 89, Madam Chair.

25 MADAM CHAIR: 89? Thank you.

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1 area clearcut, and make it more visually acceptable to
2 the public and also for wildlife like moose which
3 obviously would prefer small area clearcuts rather than
4 large continuous clearcuts.

5 Q. Now turning to your testimony in
6 sequence, you had a discussion with Ms. Cronk about the
7 areas in which you are most experienced. And she put a
8 question to you something like from my notes.

9 Is it fair to say that your experience as
10 a forester has focused in the Lake Nipigon district?

11 And you said, yes, as regarded to your
12 official capacity but unofficially that you became
13 involved in other areas, and that you have been active
14 in a much larger area in identifying problems and
15 discussing them with your colleagues.

16 Now, first of all, in preparing your 1983
17 report, the evaluation of three silvicultural
18 treatments--

19 A. Yes.

20 Q. --in the northcentral region, did you
21 travel outside of the Lake Nipigon area?

22 A. Yes, I travelled throughout the
23 northcentral region and the western region and into the
24 eastern, the northeastern region.

25 Q. Okay. Do you recall by any chance

1 the number of districts that you visited?

2 A. Oh, I am just guessing. I'm talking
3 about districts, definitely in three different
4 regions -- and because each region has about four or
5 five districts, so multiply it by about 15, 20
6 districts.

7 Q. And have you travelled outside the
8 Lake Nipigon/Beardmore area--

9 A. Yes.

10 Q. --in your consulting practice?

11 A. Yes.

12 Q. And could you indicate in what areas
13 you've travelled?

14 A. I have travelled actually from Kenora
15 right down to Lake Abitibi which is past Cochrane, the
16 City or Town of Cochrane. So more or less, I have
17 travelled all districts along the Highway 11 across the
18 boreal forest.

19 Q. And what about areas travelled with
20 scientists from the Canadian Forest Service?

21 A. The same thing, I think that we have
22 covered the majority of districts and have viewed
23 different problems and different situations quite
24 frequently since I -- as a matter of fact, since I
25 started basically with Lands and Forests in 1957 up to

1 now.

2 Q. And to be clear, are those districts
3 outside the Lake Nipigon/Beardmore area?

4 A. Yes, yes.

5 Q. Now Ms. Cronk had a discussion with
6 you too, regarding your experience with the current
7 timber management planning process. And you agreed
8 with her that you do not have experience in authorizing
9 or approving a timber management plan under the current
10 planning process.

11 Now my questions is, since you have been
12 working as a consultant - since your retirement from
13 the Ministry - have you had any experience in reviewing
14 plans prepared under the current planning process?

15 A. Yes, I had the opportunity to review
16 quite a few plans of timber management or forest
17 management plan - whatever you may call it - during my
18 contact with my clients who asked me to give them my
19 opinion about the quality of plants and perhaps their
20 own interpretation and suggestions into the planning
21 process.

22 Q. Now you had a discussion with Ms.
23 Cronk with regard to scientific innovations, and she
24 asked you a question to this effect: Do you agree that
25 it is inappropriate to foreclose any particular

1 innovation for the scientific community from use by the
2 foresters? And you had you said, yes, to that
3 question.

4 And my question is - for the purpose of
5 clarifying your meaning with the Board - is the Board
6 correct in understanding your answer to mean that --

7 MR. FREIDIN: Well, I don't --

8 MS. SWENARCHUK: All right. I'll
9 rephrase the question.

10 Q. In responding to that question Mr.
11 Marek, did you intend your response to be an
12 endorsement of any particular scientific innovation?
13 Would you like me to read --

14 A. I'm sorry. Yes, would you put in a
15 kind of a more plainer --

16 Q. Okay. The question put to you was,
17 would you agree that's it's inappropriate to foreclose
18 the use of any particular scientific innovation by the
19 scientific community?

20 A. Yes.

21 Q. And you answered to that, yes, it
22 would be inappropriate to foreclose the use of any
23 particular innovation.

24 And my question is, did you intend in
25 that answer to endorse any particular scientific

1 innovation?

2 A. If the scientific innovation is
3 beneficial to the forest lands and we can improve the
4 practices, yes. My answer is yes.

5 There are many scientific innovations
6 which may not serve right to the purpose of sound
7 forest management or better forest management -
8 whatever you may use - and I think that this should be
9 scrutinized very clearly, what kind of scientific
10 innovation we are talking about.

11 Q. Okay. Now again, this is a question
12 of clarification. And perhaps I should say, Mr. Marek,
13 that I think there are a number of areas when my review
14 of my notes and the transcripts where they were
15 available, suggest that there's still some lack of
16 clarity in your responses, and those are the questions
17 that I'm putting to you now. Okay?

18 A. Okay.

19 Q. Now, both in the witness statement
20 and in your direct testimony, you spoke of your
21 dissatisfaction with some tending results.

22 A. Right.

23 Q. Then in a discussion with Ms. Cronk
24 with regard to limestone lake plantation--

25 A. Yes.

1 Q. --you indicated that you were not
2 satisfied with the tending results - and there is a
3 long discussion there and my notes are not clear on
4 it - but ultimately, Ms. Cronk put to you that you were
5 managing in that plantation for pure black spruce
6 stands.

7 A. Intensive management.

8 Q. Yes. And she said to you -- so it is
9 in that context that you were saying you were not
10 satisfied with the tending results and you replied,
11 yes.

12 A. Yes, I'm not satisfied with the
13 results because I didn't achieve the goals or
14 objectives which I had hoped.

15 Q. All right. So I'm going to ask a
16 number of related questions now. We go back to your
17 witness statement for Forests for Tomorrow at pages 62
18 and 63--

19 A. Yes.

20 Q. --beginning at the bottom of page 62,
21 the sentence four lines from the bottom--

22 A. Yes.

23 Q. --reads:

24 "However, problems exist with the
25 habitual use of chemical herbicides.

1 These herbicide are often applied
2 improperly and in anticipation of
3 problems which may or may not develop"--

4 A. Yes.

5 Q. --"while the directions for use are
6 precise and clear, the reaction of the
7 plants is often unpredictable."

8 A. Yes.

9 Q. Now for clarification, do these
10 problems exist only when stands are being managed for
11 pure black spruce, or in addition, when they're being
12 managed for other possible objectives?

13 A. Correct. In order to clarify the
14 situation, may I give you examples? And I'm going
15 back, in anticipation of a problem which may or may not
16 develop.

17 I have, since herbicides were induced
18 into tending processes, I often have seen young
19 foresters with experience are rushing into the
20 herbicide spraying without knowing really what the
21 dynamics of the stands or crop trees - or whatever you
22 may call it - the result.

23 MR. FREIDIN: Madam Chair, this evidence
24 was evidence-in-chief I think, and the re-examination
25 of the witness should be restricted to answering the

1 question specifically, and not repeating the
2 evidence-in-chief and elaborating on it which is not a
3 purpose of re-examination.

4 I think if this question -- if this
5 particular questioning doesn't apply to areas other
6 than areas which are intensively managed, I think the
7 witness can say, yes, and that's the end of it in terms
8 of re-examination.

9 MADAM CHAIR: Mr. Marek, in your answer
10 to Ms. Swenarchuk's question--

11 THE WITNESS: Yes.

12 MADAM CHAIR: --are you going to conclude
13 that the problems you had found with respect to the
14 outcome of herbicide use--

15 THE WITNESS: Yes.

16 MADAM CHAIR: --are similar in
17 intensively managed areas, and if herbicides were used
18 in multi-purpose forests as well?

19 THE WITNESS: It might not be --

20 MS. SWENARCHUK: With respect, Madam
21 Chair, that was not my question.

22 THE WITNESS: That was not the question.

23 MADAM CHAIR: Well, what's your question
24 then?

25 MS. SWENARCHUK: Q. Okay. My question

1 has to do with whether -- and perhaps I'll put it more
2 generally, I was going to go through it one by one.

3 Ms. Cronk focused the question on
4 dissatisfaction with tending results in the context
5 where the management goal was pure black spruce stands.

6 A. Yes.

7 Q. And my question is - and I'm really
8 not clear from the discussion there - do your concerns
9 with regard to tending results through herbicide use
10 extend to situations where the management goal is not
11 necessarily pure black spruce stands, but could be
12 other management goals as well?

13 A. My concern is -- with these two or
14 three examples you have said, my concern is being
15 applied in an area of black spruce plantation which I
16 tried to achieve for maximum timber production. It was
17 not satisfactory because I didn't achieve the
18 objective. In other words, I did not as yet achieve
19 pure black spruce stands.

20 Q. All right. And that response to Ms.
21 Cronk with regard to the Limestone plantation has to do
22 with pure black spruce stands then?

23 A. In this case where I --

24 Q. Okay. In that case. All right.

25 A. Madam Chair, going back to this

1 paragraph down at my statement which may not develop,
2 it seems to me that the forester has to be extremely
3 aware what timing he's using and what condition that he
4 has. And I was not satisfied with some of these result
5 because the consideration was given to.

6 Q. Now you were also asked by Ms. Cronk
7 with regard to the use 2,4-D. And I believe you
8 indicated that in some cases you found it useful and
9 you used it.

10 A. Yes.

11 Q. Now the Board is going to hear
12 evidence that many thousands of studies have now been
13 done on the environmental effects of 2,4-D including
14 human health effects.

15 Is it correct that in making decisions to
16 use 2,4-D in timber management, you did not have the
17 opportunity to review all or many of those studies?

18 A. Well, I have reviewed some obviously,
19 but I'm not -- Madam Chair, I'm not experienced in
20 chemicals, but what I think I'm experience in - as a
21 kind of follow-up - which means the situation after the
22 chemicals are being used; the observation, the results
23 of chemical use.

24 And I think I should have pointed it out
25 when I had an opportunity to be cross-examined by

1 Madame Cronk there, where I state: Yes, I'm an expert
2 in the causes and in the result, I'm not experienced in
3 the chemical results.

4 Q. Okay. Now you also had discussions
5 with Ms. Cronk - and I'm again trying to clarify the
6 extent of your meaning here - with regard to the need
7 for repeated chemical tendings in certain
8 circumstances.

9 A. Yes.

10 Q. And again, with regard to the witness
11 statement and mixed wood stands -- you've described on
12 page 38 and 39, management of these mixed wood stands.
13 And you've indicated on page 39:

14 "Further repeated"--

15 Okay. Page 39.

16 A. Yes.

17 Q. First paragraph.

18 --"Further repeated chemical tendings
19 will be required"--

20 A. Yes.

21 Q. --"even beyond the age of 20 years
22 after planting. It is and will continue
23 to be a vicious circle."

24 A. Yes.

25 Q. Now my questions is: Is it your view

1 that conversion of these mixed wood sites to spruce
2 working group will required repeated chemical tendings,
3 only if the goal is to produce pure black spruce stands
4 or some other measure of black spruce stocking?

5 MR. FREIDIN: Madam Chair, this question
6 is a passage to the subject of evidence-in-chief and
7 particularly cross-examination, and this witness stated
8 specifically that this passage referred to
9 interrogatories -- only applies to the situations where
10 they're attempting to get a pure stand back.

11 That is the evidence, and to ask this is
12 raising a whole new subject matter. It's not a matter
13 of clarification, it's raising a new subject matter and
14 in my respectful submission, improper re-examination.

15 MADAM CHAIR: What is the clarification,
16 Ms. Swenarchuk?

17 MS. SWENARCHUK: My clarification is
18 precisely that I am not clear that that is what Mr.
19 Marek intended to say or said under cross-examination,
20 and that's why I'm putting the question again so that
21 the evidence will be clear.

22 I do not agree with Mr. Freidin that the
23 evidence is clear on this point. And I'm simply asking
24 Mr. Marek to clarify it for us.

25 MR. FREIDIN: Don't ask him -- the proper

1 question is -- well, I think the evidence was quite
2 clear. Anyway you have my submission on this.

3 MADAM CHAIR: What did you mean in your
4 remarks about this passage in your report, Mr. Marek?

5 THE WITNESS: If the goal and objectives
6 is the maximization of timber production and the
7 intensive management - which I have experienced it -
8 the necessity of several tendings, the necessity
9 probably of using chemicals is absolutely essential.

10 Does it clarify or not?

11 MADAM CHAIR: Is that what you were
12 looking for--

13 MS. SWENARCHUK: Yes.

14 MADAM CHAIR: --Ms. Swenarchuk?

15 MS. SWENARCHUK: Q. Now, Ms. Cronk also
16 referred several times to the letter that you wrote to
17 the Black Spruce Working Group in which you
18 characterized your knowledge of the Clay Belt in 1985,
19 as sporadic.

20 A. Yes.

21 Q. Now have you continued to visit sites
22 in the Clay Belt since 1985?

23 A. Yes.

24 Q. And are there sites in the
25 Nipigon/Geraldton areas where you have spent most of

1 your professional experience?

2 A. Yes.

3 Q. Are there in those areas, sites
4 similar to the types of sites prevalent in the Clay
5 Belt area?

6 A. Mixed woods or association of many
7 trees is across the board; in other words, endemic.

8 Q. Now you were asked with regard to
9 manual tending. And let me refer, first of all, to the
10 statement in your witness statement which was I believe
11 the subject -- you made comments about manual tending
12 in your witness statement--

13 A. Yes.

14 Q. --and then you were asked a question
15 to the effect of whether -- when an area is large,
16 manual tending is therefore not justified in the area.
17 And the answer is not clear in my notes, so I'll ask
18 you again.

19 Is it your opinion that if the size of an
20 area requiring tending is large, that manual tending is
21 therefore not justified?

22 A. Counsel, I had drawn a picture here
23 where I have shown the constraints or the limitation of
24 the so-called "blanket chemical spraying" or the
25 necessity of localized tending in a broad sense.

1 And I have stated - I hope very clearly -
2 that there is no point and it's wasteful to look at the
3 blanket spraying to avoid the competition -- to
4 eliminate the competition when you have a sporadically
5 competition growth through the large area. And I think
6 I have stated very clearly that in this case I would
7 use local prescription to eliminate this competition
8 instead of the total blanket spray; in other words,
9 covering the total area by chemicals.

10 Q. Okay. Now Ms. Cronk put to you a
11 statement by Mr. Methven to the Board, and the
12 statement was whether natural disturbance
13 approximates -- whether clearcutting approximates
14 natural disturbances? And Dr. Methven said:

15 "Yes, it certainly does approximate the
16 natural disturbance. And in a fire
17 exclusion mode that we are in, it's the
18 closest approximation that we the can
19 come to."

20 Now I want to put to you the context that
21 preceded that statement. You were asked by Ms. Cronk
22 if you agreed with Dr. Methven's statement. You said,
23 yes, you did.

24 Now I want to put to you the preceding
25 lines to that statement. The question to Dr. Methven

1 was this:

2 "Dr. Methven, is clearcutting -- I'm
3 sorry the clearcut silvicultural system
4 an exact duplication of the natural
5 disturbances you have described?"

6 A. Of course.

7 Q. And his answer was:

8 "No, the clearcutting is not an exact
9 duplication, there are small differences;
10 whether it is to do with micro-climate;
11 whether it is to do with nutrient
12 dynamics; whether it is to do with scale,
13 a pattern of the landscape."

14 Q. Now, do you agree with Dr. Methven
15 that the differences between clearcutting and natural
16 disturbances is small?

17 A. No, I don't think it's small, it's
18 very important to stress some of the other aspects
19 perhaps Mr. Methven -- or Dr. Methven didn't clarify.
20 And the term is exact, what we mean by "exact". And I
21 think that my observation of the large fires - and of
22 course, the observation of large area clearcutting -
23 leads me to different conclusions, and I have that --
24 Madam Chair, I have expressed it clearly in my
25 presentation where the differences are, and where I

1 probably had some additional thought on efficiency of
2 fire and the processes, so I think that.

3 MADAM CHAIR: Yes, it has Mr. Marek.

4 THE WITNESS: Yes.

5 MS. SWENARCHUK: Madam Chair, I wish to
6 put to Mr. Marek an excerpt from MNR Statistics 1988
7 and '89. Perhaps we could make that the next exhibit.

8 This is page 15 of MNR Statistics
9 1988/'89.

10 MADAM CHAIR: That will be Exhibit No.
11 1590.

12 ---EXHIBIT NO. 1590: An excerpt, page 15, of the MNR
13 Statistics 1988/1989.

14 MR. FREIDIN: What is the --

15 MADAM CHAIR: Did you have an objection,
16 Mr. Freidin?

17 MR. FREIDIN: It's pretty hard for me to
18 object until I know the question, Madam Chair.

19 MADAM CHAIR: No, to object to making
20 this an exhibit.

21 MR. FREIDIN: Well, it may be improper to
22 make it an exhibit if the question arising therefrom is
23 improper. So we're hit with a bit of a catch-22. I
24 don't whether that would deal with the number
25 represented, and then ask the question. And if it

1 seems to be proper and there's no objection sustained,
2 then we'll make it as an exhibit.

3 MADAM CHAIR: And that was page 15 of
4 MNR's --

5 MS. SWENARCHUK: Statistics 1988/'89.

6 MADAM CHAIR: Do we have a copy of that?

7 MR. FREIDIN: That's not the excerpt from
8 the one we filed, the big one I questioned him about --

9 MS. SWENARCHUK: I don't think you filed
10 this section (handed).

11 Q. Now Mr. Marek, would you please go to
12 the Jeglum 1989 article in Volume 2 of the source book,
13 Jeglum 1989, and specifically page 5 of that article.

14 A. Is that a report which deals more for
15 strip cutting should be done?

16 MADAM CHAIR: Was that page 9?

17 MS. SWENARCHUK: It's page 5, Madam
18 Chair.

19 THE WITNESS: Yes, why don't we take --
20 why don't we... Yes.

21 MS. SWENARCHUK: All right.

22 MR. FREIDIN: Madam Chair, could we just
23 wait one second while I find my copy of that, please?

24 THE WITNESS: Why aren't we using it
25 more?

1 MR. FREIDIN: Okay.

2 MS. SWENARCHUK: Q. Now Ms. Cronk
3 referred you to this paragraph--

4 A. Yes.

5 Q. --with Mr. Jeglum's conclusion that
6 the area eligible for strip cutting is--

7 A. Yes.

8 Q. --estimated to be at about
9 22-thousand hectares per year.

10 A. Whatever.

11 Q. And furthermore - let's look at this
12 now too - that figure in Mr. Jeglum's estimate is
13 based on assumptions that 40 per cent of the annual
14 harvest consists of the black spruce working group--

15 A. That is correct.

16 Q. --and that 25 of this consists of
17 poor shallow soil and wet organic sites located far
18 from the mill or the road.

19 Now I'll ask you about that assumption in
20 a moment. But if you would look for a moment at the
21 MNR extract that I provide to you--

22 A. Yes.

23 Q. --under the column headed "1989"--

24 A. Yes.

25 Q. --the 7th line down records the

1 amount of strip cutting for regeneration purposes done
2 in 1989--

3 A. Eight hundred and fifty three --

4 Q. --853 hectares.

5 A. That's correct.

6 Q. Now is it your view based on your
7 experience Mr. Marek, that more than 853 hectares in
8 1989 would have been eligible for strip cutting?

9 A. Would have been eligible for strip
10 cutting...

11 Q. That of the 240-thousand hectares
12 harvested in 1989 --

13 A. Of course, it should have been more
14 but--

15 Q. All right.

16 A. --that's my...

17 Q. All right. And can I refer you back
18 to the Jeglum article then--

19 A. Yes.

20 Q. --and the assumptions on which he
21 arrived at the 20-thousand hectare figure --

22 A. Yes, 22-thousand.

23 Q. Twenty-two thousand, right -- namely,
24 that 40 per cent of the annual harvest consists of
25 black spruce and 25 per cent of this consists of poor

1 shallow soil and wet organic sites--

2 A. Yes.

3 Q. --located far from the mill or the
4 road.

5 A. Yes.

6 Q. So he was assuming that we strip cut
7 on those types of sites, and when we're dealing with a
8 site far from the mill or the road.

9 Now you indicated to Ms. Cronk that you
10 would broaden the spectrum of sites on which it could
11 be done.

12 A. That is correct because I consider it
13 unstable.

14 Q. Yes, I'd like you to clarify for the
15 Board's benefit how you would broaden that spectrum.
16 In other words, what other types of sites you might
17 consider should be harvested by modified cutting?

18 A. All sites which may suffer water rise
19 and eventually water deficiency because the water rise
20 doesn't last forever. They last four or five years and
21 then of course, the whole ecosystem balance it's
22 interrupted. So I would probably treat most of these
23 sites by small area clearcut management.

24 Madam Chair, I testified already that the
25 water problem is one of the main reasons I would use

1 small area clearcut management. And I testified to it
2 as to why because I think it's directly connected not
3 only to the timber production or the ecosystem
4 healthiness or health, but also for the other reason as
5 fish and wildlife and some other aspects of the total
6 ecosystem.

7 Q. Now Mr. Marek, would you please turn
8 to Tab 19 of the Industry's black binder which is
9 another Jeglum article.

10 A. Yes, "Factors Affecting
11 Regeneration--

12 Q. Right.

13 A. --in Forest Cut Strips". That was
14 1980...

15 Q. Four, I believe. No, seven. Excuse
16 me, 1987.

17 MADAM CHAIR: Is this Exhibit 1550?

18 MS. SWENARCHUK: That's right.

19 Q. Now Ms. Cronk drew your attention to
20 page 440 which is the second page of the article--

21 A. Yes.

22 Q. --and the statement in the second
23 paragraph...

24 A. "In the boreal forest of Ontario"?

25 Q. "However, desirable levels of

1 regeneration."

2 A. You are looking at page 440?

3 Q. Page 440, the left-hand column, the
4 second paragraph about halfway down says:

5 "However, desirable levels of
6 regeneration are not always achieved with
7 strip cutting and factors such as poor
8 seed supply, several years of dry weather
9 and poor site preparation may explain
10 failure or marginally acceptable levels
11 of regeneration."

12 A. Yes.

13 Q. Now aside from the question of seed
14 supply, in your opinion would these factors, dry
15 weather and improper site preparation also affect the
16 success of artificial regeneration?

17 A. Yes, very much so. That has been
18 documented by Jeglum in another article, or emphasize
19 the growth and dynamics of the spruce stand development
20 in clearcut versus the strip cuts.

21 Q. Now would you please turn to page 444
22 of that article to another paragraph that --

23 A. Yes, 444. Yes.

24 Q. Ms. Cronk also brought your attention
25 to the fifth paragraph on the left which reads:

1 "Whenever there are some hardwoods in the
2 original stand"--

3 A. Yes.

4 Q. --"there is a potential problem of
5 competition."

6 A. Yes.

7 Q. "This problem is also encountered in
8 clearcutting, but strip cutting may
9 favour somewhat higher levels of
10 regeneration from the seed of
11 broad-leaved trees that may be present in
12 the residual strips."

13 A. Yes.

14 Q. "Hardwood control may be necessary at
15 an early stage of the juvenile stand"--

16 A. Yes.

17 Q. --"development."

18 Do you agree with Dr. Jeglum --

19 MR. FREIDIN: Well, Madam Chair, he was
20 asked about that, he gave an answer to that. The
21 purpose of re-examination is to ask for clarification
22 of the answer which was given.

23 Proper re-examination would be to say,
24 you answered this and ask for some clarification, not
25 to put the quote -- not refer to the answers in asking

1 a new question altogether.

2 So I would ask that Ms. Swenarchuk
3 realizes that, and I think that you would agree with
4 that.

5 MS. SWENARCHUK: Q. I don't have my
6 notes or reference for that one so I'll come back to
7 it.

8 Can you look at Tab 16, Mr. Marek, of
9 this book which is the Armstrong Crown Management Plan?

10 A. Yes.

11 Q. And at page 20 of the plan--

12 A. Yes.

13 Q. --you will refer to the first
14 paragraph which indicates:

15 "Overmaturity of many of the stands
16 dictates harvesting of substantial
17 blocks."

18 A. That's right.

19 MR. FREIDIN: What page are you looking
20 at?

21 MS. SWENARCHUK: Page 20 of the Plan,
22 first paragraph.

23 MR. FREIDIN: On my page 20 is marked
24 about the jack pine working group.

25 THE WITNESS: Yes.

1 MS. SWENARCHUK: That's right. The first
2 paragraph.

3 MR. FREIDIN: Oh, I see the second
4 sentence. I'm sorry. Thank you.

5 MS. SWENARCHUK: Q. "Over maturity of
6 many of the stands dictates harvesting of
7 substantial blocks."

8 A. Yes.

9 Q. And my notes indicate that your
10 response to that question indicated 60 to 70-acre
11 blocks. Is that the size of the blocks that were used
12 under this plan?

13 A. Yes, that's what we have done there.
14 On specific sites which were fairly gravelly and coarse
15 sands, yes, we have done it.

16 Q. Sixty to seventy acres.

17 A. Sixty to seventy acres, yeah.

18 Q. Now to clarify an issues raised in
19 Ms. Seaborn's cross-examination, Mr. Marek, and this
20 has to do with the recommendations made in the Timmer,
21 Savinsky, Marek report.

22 A. Yes.

23 Q. Is it your evidence that these
24 recommendations are or are not now being followed in
25 the boreal forests of Ontario?

1 A. Of course not, they are not being
2 followed.

3 Q. Now finally Mr. Marek, if you'd look
4 at the Domtar report that was produced yesterday.

5 A. Yes. Okay. Go ahead. I have it
6 in -- I can see it.

7 Q. Well, I'm going to refer you to
8 specific passages so I'd prefer that you have it.

9 A. Yes. Okay. I have it here.

10 Q. You have it? All right.

11 Now Ms. Cronk asked you a question with
12 regard to whether the final conclusion of the report --

13 MR. MARTEL: Do you have a number for
14 that?

15 MADAM CHAIR: 1588?

16 MS. SWENARCHUK: Yes, Exhibit 1588.

17 MADAM CHAIR: What page are we on, Ms.
18 Swenarchuk?

19 MS. SWENARCHUK: I'm just referring now
20 to my notes. The question from Ms. Cronk that I'm
21 referring to is in regard to the last paragraph of the
22 report and the conclusions made at that time.

23 Q. Now you indicated in response to her
24 questions that with the changing in -- changes in the
25 technology--

1 A. Yes.

2 Q. --of chipping that to some degree the
3 conclusions in the final paragraph have been changed.

4 Now I see that in paragraph 3 on the same
5 page, the report concluded that:

6 "The proportion of operable stands in
7 silviculturally treatable sites would
8 probably decline further with any
9 increased sampling in the seven
10 townships."

11 A. Not necessarily, Madame. We look at
12 it as best we could have at that time. But when you
13 talk about intensive management you got to have much
14 better information as presented in this report.

15 Q. Yes.

16 A. So I cannot certainly tell you if --
17 I was hoping that time that Domtar will follow-up this
18 kind of initial study and look at the thorough picture
19 by individual townships again, and then decide finally
20 what areas are suitable for intensive management and
21 which are not. And of course, this was an initial
22 attempt which was not followed.

23 Q. However, for whatever reasons - I
24 have to clarify this for the -- Mr. Clemmer who wrote
25 this did conclude in that paragraph--

1 A. Yes.

2 Q. --that no further sampling was
3 possible and the results might have been different had
4 you been able to sample further. Is that not true?

5 A. Yes.

6 Q. I think I'll just conclude there and
7 leave other questions for argument.

8 Mr. Marek you've been here for four
9 weeks, is there anything remaining further that you
10 wish to say to the Board?

11 MR. FREIDIN: Well, Madam Chair, I have
12 to object to that. This is re-examination. Mr. Marek
13 had every opportunity to give his evidence, and to ask
14 that kind of question, that can get us involved in
15 areas which I didn't have a chance and no one else had
16 a chance to cross-examine.

17 And I think Mr. Marek had been dealt with
18 fairly and I would ask that he not be allowed to answer
19 that general, wide-open question.

20 MADAM CHAIR: Well, the Board certainly
21 agrees, there isn't any area of Mr. Marek's evidence
22 that hasn't been thoroughly cross-examined.

23 And you have nothing further to ask of
24 Mr. Marek?

25 MS. SWENARCHUK: No.

1 MADAM CHAIR: The Board thanks you very
2 much Mr. Marek for spending these past weeks with us,
3 and we appreciate all your efforts. Thank you and have
4 a good trip home.

5 And did you write this--

6 THE WITNESS: Yes, I did--

7 MADAM CHAIR: --on the overhead?

8 THE WITNESS: --for the benefit of Mr.
9 Freidin, so he has something to think of over the
10 weekend, you see. I was here for a weekend too, so he
11 can...

12 MADAM CHAIR: Would you like to translate
13 that for Mr. Freidin?

14 THE WITNESS: "Felix qui potuit rerum
15 cognoscere causeas."

16 Mr. Freidin, you have now full knowledge
17 of this --

18 MR. FREIDIN: "Happy is the man who
19 understands the causes."

20 THE WITNESS: That's right.

21 Madam Chair, I thought it was a pleasure
22 to be here.

23 I just have one or two sentences. I
24 brought new options before you, new options on how to
25 increase our forest management. I thank you for your

1 attention. I thank you very much for your
2 encouragement, and I bid you farewell.

3 --- (Witness withdraws)

4 MADAM CHAIR: Thank you, Mr. Marek.

5 THE WITNESS: You're welcome.

6 MADAM CHAIR: Do you want to take a break
7 now?

8 (no response) Yes.

9 We will take our afternoon break now.

10 --- Recess at 2:15 p.m.

11 --- On resuming at 2:35 p.m.

12 MADAM CHAIR: Please be seated.

13 Good afternoon, Mr. Lindgren.

14 MR. LINDGREN: Good afternoon, Madam
15 Chair, and Mr. Martel.

16 We're ready to proceed with FFT witness
17 statement No. 4, which is entitled: "The Forest or The
18 Trees - Non-Timber Values and Forest Management in
19 Ontario."

20 There are a number of housekeeping items
21 to take care of before we proceed, however. Perhaps we
22 can begin by marking the witness statement as the next
23 exhibit. I'm not sure where we are on the list.

24 MADAM CHAIR: That will be Exhibit 1591.

25 --- EXHIBIT NO. 1591: The FFT witness statement No. 4,

1 entitled: "The Forest or The
2 Trees - Non-timber Values and
 Timber Management in Ontario".

3 MR. LINDGREN: Thank you. And while we
4 have the witness statement before us Madam Chair, I
5 would like to point out that there is one errata that
6 can be corrected very simply, and this is located on
7 page 41. And about ten or twelve lines down there's a
8 reference to FFT witness statement No. 6, it should
9 actually read No. 7.

10 Perhaps as the next exhibit, we can mark
11 the CV of Dr. Payne which has been distributed with
12 the witness statement and has been provided to the
13 parties.

14 MADAM CHAIR: That will be Exhibit 1592.

15 ---EXHIBIT NO. 1592: The curriculum vitae of Dr.
16 Robert Payne.

17 MR. LINDGREN: Thank you. And I do have
18 extra copies of the CV if the parties require it.

19 Next I believe we should mark the source
20 books for FFT Panel No. 4. I would simply ask that
21 these be marked as Exhibit 1593, A,B,and C --

22 MR. MARTEL: Can you hang on for a
23 minute, Mr. Lindgren?

24 MADAM CHAIR: We're just looking for the
25 source books for Panel 4, Mr. Lindgren.

1 MR. MARTEL: I'm looking for the CV.

2 MADAM CHAIR: Oh.

3 MR. LINDGREN: Okay. Madam Chair, these
4 are the source books as Mr. Pascoe dutifully tabed for
5 you.

6 MADAM CHAIR: Thank you.

7 MR. LINDGREN: And Mr. Martel, I have a
8 copy of the CV if you require it.

9 MR. MARTEL: It would helpful.

10 MR. LINDGREN: Okay.

11 MR. MARTEL: Thank you.

12 MR. LINDGREN: And with respect to the
13 source books, Madam Chair, I would simply request that
14 Volumes 1, 2, and 3 be marked as A,B and C,
15 respectively.

16 MADAM CHAIR: Thank you. Exhibit 1593A
17 will be source book Volume No. 1 for Forests for
18 Tomorrow's Witness Panel No. 4. And source book Volume
19 2 will be Exhibit 1593B; and source book Volume 3, will
20 be Exhibit 1593C.

21 ---EXHIBIT NO. 1593A: Source book, Volume No. 1 for
22 Forests for Tomorrow's Witness
Panel No. 4.

23 ---EXHIBIT NO. 1593B: Source book, Volume No. 2.

24 ---EXHIBIT NO. 1593C: Source book, Volume No. 3.

25 MR. LINDGREN: Thank you. And at this

1 time Madam Chair I can indicate that I've had an
2 opportunity to review the source book that has been
3 filed with the Board, and there's one document that's
4 missing and I can provide it to the Board at this time.
5 This is the World Conservation Strategy, that was
6 published by the International Union for the
7 Conservation of Nature and Natural Resources. It
8 should have appeared in Volume 2 of the source book,
9 and in fact, it did appear in some source books but not
10 in others. And unfortunately it doesn't appear in the
11 Board's copy, so I can file it with you now.

12 MADAM CHAIR: All right. And this will
13 be a separate exhibit number, Mr. Lindgren--

14 MR. LINDGREN: Sure.

15 MADAM CHAIR: --unless I've got to tab
16 it?

17 MR. LINDGREN: No, it's not a tab, Madam
18 Chair.

19 MADAM CHAIR: All right. Or would you
20 prefer that we just put it in source book 1.

21 MR. LINDGREN: Well, in my source book it
22 follows the second Hendee article.

23 MADAM CHAIR: Well, why don't we do that,
24 why don't we put this -- does everyone have a copy of
25 this document, all the parties?

1 MR. LINDGREN: I believe so.

2 MADAM CHAIR: All right. Let's put it in
3 source book No.--

4 MR. LINDGREN: Two.

5 MADAM CHAIR: --2, following --

6 MR. LINDGREN: It appears in mine after
7 the article by Hendee entitled: "Multiple Satisfaction
8 Approach to Gain Management".

9 MADAM CHAIR: Okay. Does he have another
10 article in here?

11 DR. PAYNE: Yes.

12 MR. LINDGREN: Yes, there's two, it's
13 after the second article. We had filed this
14 alphabetically under IUCN.

15 Thank you, Madam Chair. The next item is
16 to the file a package of interrogatories related to
17 witness statement No. 4. These are interrogatories
18 from NOTOA, Nos. 5, 7 and 8; MOE, Nos. 2 and 3; and
19 MNR, 4, 8, 11, 15, 22, and 26.

20 MADAM CHAIR: All right Exhibit 1594 will
21 be comprised of these interrogatories.

22 ---EXHIBIT NO. 1594: A file of interrogatories
23 related to witness statement No.
24 4: Interrogatories from NOTOA,
25 Nos. 5, 7 and 8; MOE, Nos. 2 and
3; and MNR, Nos. 4, 8, 11, 15, 22
and 26.

1 MR. LINDGREN: And Madam Chair, was that
2 Exhibit 1594 for the interrogatories?

3 MADAM CHAIR: Yes.

4 MR. LINDGREN: Thank you.

5 And finally at this time I would like to
6 mark as exhibits three articles, one of which was
7 provided to the parties in advance and two that have
8 not.

9 The first is an article by Clark and
10 Stankey, S-t-a-n-k-e-y, entitled: "The Recreation
11 Opportunities Spectrum - A Framework for Planning
12 Management and Research", and it's dated December 1979,
13 and is put out by the United States Forest Service.

14 MADAM CHAIR: Do you want these to have
15 separates exhibits, Mr. Lindgren?

16 MR. LINDGREN: Yes, please.

17 MADAM CHAIR: The Clark and Stankey
18 article will be Exhibit 1595. And how many pages do we
19 have in this? It looks like 32 pages.

20 MR. LINDGREN: That would be my estimate,
21 Madam Chair.

22 ---EXHIBIT NO. 1595: The Clark and Stankey article
23 consisting of 32 pages, dated
24 December 1979, entitled: "The
25 Recreation Opportunities
Spectrum - A Framework for
Planning Management and
Research".

1 MR. LINDGREN: The next article is a
2 17-page (sic) document entitled: "Policy Formulation
3 and Communication in Changing Times". And the author
4 is Harold Eidsvik, E-i-d-s-v-i-k, and it's dated April
5 of 1990. I ask that this would be marked at the next
6 exhibit.

7 MADAM CHAIR: That will be Exhibit 1596.

8 ---EXHIBIT NO. 1596: A 16-page article by Harold
9 Eidsvik, dated April 1990,
10 entitled: "Policy Formulation
and Communication in Changing
Times".

11 MR. LINDGREN: Thank you.

12 Madam Chair, the final article that I
13 would like to mark at this time is a document entitled:
14 "Designing a Program of Change for The Ministry of
15 Natural Resources", dated April 1989. And it was
16 published by or produced by the CRESAP, C-r-e-s-a-p,
17 Consulting Company.

18 MADAM CHAIR: How many --

19 MR. LINDGREN: It appears to be a 20-page
20 document.

21 MADAM CHAIR: The 20-page document, that
22 will be Exhibit 1597. And did we say that Exhibit 1596
23 had 16 pages?

24 MR. LINDGREN: That's correct.

1 ---EXHIBIT NO. 1597: A 20-page document produced by
2 CRESAP Consulting Company, dated
3 April 1989, entitled: "Designing
 a Program of Change for The
 Ministry of Natural Resources".

4 MR. LINDGREN: Thank you for your
5 indulgence, Madam Chair. I wanted to file them all
6 together so as to not detract from the flow of the
7 testimony when we come to these documents.

8 The next housekeeping item Madam Chair,
9 if you could have the witness affirmed to give
10 testimony before this Board.

11 MADAM CHAIR: Good afternoon, Dr. Payne.

12 DR. PAYNE: Good afternoon, Madam Chair.

13 MADAM CHAIR: Could you approach the
14 Board please, or you can sit where you are.

15 DR. ROBERT PAYNE; Affirmed.

16 MADAM CHAIR: Thank you very much.

17 DIRECT EXAMINATION BY MR. LINDGREN:

18 Q. Good afternoon, Dr. Payne.

19 A. Good afternoon, Mr. Lindgren.

20 Q. Madam Chair, I'd like to begin by
21 briefly reviewing some particular items and Dr. Payne's
22 CV which has been marked as Exhibit 1592. And the
23 reason that I do that Madam Chair, is that Dr. Payne's
24 qualifications and experience give -- his evidence
25 before this Board has been called into some question by

1 the statements of issue that we received. And we would
2 like to make it perfectly clear what Dr. Payne's
3 credentials and experience is with respect to his
4 evidence. And I don't anticipate that that will take
5 more than a couple of minutes.

6 MADAM CHAIR: Thank you, Mr. Lindgren.

7 MR. COSMAN: Madam Chair, perhaps --

8 MADAM CHAIR: Yes, Mr. Cosman?

9 MR. COSMAN: Madam Chair, just before Mr.
10 Lindgren does that, perhaps it would be helpful to know
11 what it is these credentials are being lead to, to
12 establish what is the particular qualification that --
13 or qualification and the area of expertise that Mr.
14 Lindgren is putting this witness forward to give
15 evidence on?

16 MR. LINDGREN: Well, Madam Chair, I'm
17 prepared to do that right now but it's a little like
18 putting the cart before the horse. I can tell you what
19 the qualifications are, but I would still like to
20 review some of his qualifications in order to --

21 MR. COSMAN: I'm not objecting to that,
22 it's just before we hear a bunch evidence it would nice
23 to know what's being directed first.

24 MR. LINDGREN: Well, Madam Chair, we're
25 presenting Dr. Payne to be qualified as an expert in

1 geography and social science with particular expertise
2 in the planning and management of human use of the
3 natural environment. And I think once we review his
4 qualifications, the reason why we're qualifying him
5 that way will be clear to the Board and to the parties.

6 Q. Dr. Payne, do you have a copy of your
7 CV before you?

8 A. Yes, I do, Mr. Lindgren.

9 Q. Now I understand --

10 MADAM CHAIR: Excuse me, Dr. Payne.
11 Could we ask you to speak up a bit for the court
12 reporter?

13 THE WITNESS: Certainly.

14 MADAM CHAIR: Thank you. And perhaps Mr.
15 Lindgren you would slow down a little bit.

16 MR. LINDGREN: Certainly, Madam Chair.

17 MADAM CHAIR: You've accelerated the pace
18 of our hearings.

19 MR. LINDGREN: Well, we wouldn't want
20 that to occur (laughter).

21 MADAM CHAIR: We're not used to it. You
22 put us into shock (laughter).

23 MR. LINDGREN: Okay. Your comments are
24 well noted and well taken, Madam Chair.

25 Q. Dr. Payne, I understand that you hold

1 undergraduate and graduate degrees in geography, is
2 that correct?

3 A. That's correct, yes.

4 Q. And you also --

5 A. The undergraduate degree is from the
6 University of Guelph which of course is well known for
7 being cornered with land use planning, in general.

8 Q. And I understand that you also hold a
9 Ph.D. in Geography.

10 A. That's right, from the University of
11 Calgary.

12 Q. And when you use to word "geography",
13 what do you mean by it? What does the term entail?

14 A. For me it entails the study of
15 essentially the human use of the natural environment.
16 I guess I could add to that, such use often involves a
17 cultural dimension or a social dimension, occasionally
18 a psychological dimension as well, but certainly use.

19 Q. And presently I understand that
20 you're a tenure to Associate Professor in the School of
21 Outdoor Recreation Parks and Tourism at Lakehead
22 University.

23 A. Yes, that's correct.

24 Q. And can you briefly describe for the
25 Board the courses that you presently teach that have

1 relevance to the subject matter of your testimony?

2 A. Presently I have been teaching two
3 courses I think that are directly relevant. One, is a
4 second year course in Outdoor Recreation and Tourism
5 Planning which focuses on three levels of planning:
6 The strategic level of planning; area or regional
7 planning; and then finally, site planning.

8 That course is, of course, fairly
9 appropriate for the area in which we find ourselves in,
10 Thunder Bay, given that it's surrounded by such a large
11 vast area of Crown land close to the Ministry of
12 Natural Resources regional and district offices. And
13 fortunately as well, close to a major American land use
14 planning outfit in Superior National Forest.

15 In fact, about two weeks ago - it's hard
16 to remember -I was with a group of students and went
17 down to the National Forest Headquarters in Duluth to
18 talk to the land use planners there, and to
19 specifically talk to the recreation people about how
20 recreation fits into their national forest planning
21 process.

22 Q. And that's your first course that
23 you wanted to mention?

24 A. That's right.

25 Q. And you had a second course?

1 A. The second course that I've been
2 teaching this term is a course in Park Planning and
3 Management. That course is a fourth year level course
4 and --

5 MADAM CHAIR: Excuse me. Excuse me, Dr.
6 Payne. Did you say that the second course you're
7 teaching is on park planning?

8 THE WITNESS: That's right, Park Planning
9 and Management. That course is a fourth year level
10 course and consequently the students are much more
11 capable. They're currently - I hope - doing a project
12 which examines whether or not there should be a
13 national or a national marine park in the Nipigon River
14 area of the Thunder Bay area.

15 Q. And does that course involve issues
16 related to extractive industries such as logging or
17 some of the activities associated with those
18 undertakings?

19 A. It does, because of course these
20 activities often can have impacts on the internal park
21 environment. I guess I like to use the example of
22 Pukaskwa National Park.

23 It's a park that is being opened up, if
24 you like, from the east side associated with much of
25 the Hemlo activity, especially the exploratory

1 activity. It's being affected as well on the north
2 side through access being provided through forest
3 management activities. And it's being affected more
4 and more by access from Lake Superior itself as --
5 well, a few people anyway begin to use Lake Superior as
6 a recreational resource.

7 So the boundary sorts of issues clearly
8 are an important aspect of that. I've tried to include
9 an aspect that is fairly significant for Pukaskwa - has
10 been significant elsewhere - namely, a biosphere
11 reserve concept in that course.

12 That idea focuses on a core area of
13 protected status, perhaps a park, perhaps a national
14 wildlife area - some form of protected area - and a
15 sort of peripheral zone in which resource activities
16 and other forms of land use go on, but go on under - I
17 suppose - in environmentally friendly ways that will
18 not have devastation or negative impacts on the park
19 environment.

20 Q. And I understand that you've lectured
21 in the School of Forestry at Lakehead University--

22 A. Yes.

23 Q. --about the graduate and the
24 undergraduate level?

25 A. Yes, that's correct. At the

1 undergraduate level, I was part of a session on parks,
2 conservation and forestry -- or the conservation
3 strategies in forestry, in the introductory course, a
4 new introductory course I understand in Forestry
5 School. Just recently I was a guest at a graduate
6 course on forest management lead by Peter Dunker and
7 two other professors in that faculty.

8 Our unit is enjoying fairly good
9 relations with forestry at the moment, and we are
10 actively looking toward becoming involved in their
11 graduate program as both, I suppose, supervisors of
12 graduate thesis, but also as a course in terms of
13 delivering courses at the graduate level.

14 Q. Now you've mentioned that you're
15 involved with honours thesis supervision. Are there
16 any projects that are currently under way that have
17 some relevance to forestry that you're involved with?

18 A. Yes, I have a student that's just
19 completing his study of several provincial parks in
20 northwestern Ontario with respect to how the boundary
21 delineation was done for those parks, and specifically
22 I suppose whether or not the boundaries were done from
23 a purely administrative point of view or whether they
24 were developed from an ecological point of view.

25 In addition to that, I'm presently

1 starting to supervise a student who is examining
2 park-user statistics with a view to identifying user
3 groups for provincial parks that are based on
4 activities that people take part in when they go to
5 provincial parks.

6 Q. And I also understand that you're
7 involved with an old growth project.

8 A. Yes, that's right. I'm on a
9 supervisory committee for a student in forestry who is
10 doing an M.Sc. Forestry degree. That project is just
11 getting started and she - I now understand - will be
12 examining the whole issue of old growth and attempting
13 to get a - well, I suppose if not a consensus - but at
14 least a range of values that are associated with old
15 growth that can begin to allow foresters to address
16 what old growth means to people.

17 Q. And what is the nature of your role
18 in that project?

19 A. Well, as a member of the committee,
20 I'm there essentially I think as a social scientist.
21 The other two people on the committee are both
22 foresters.

23 Q. Now very quickly, Dr. Payne, page 1
24 of your CV indicates that you've taught at a number of
25 other Canadian universities and colleges, and I'm not

1 asking you to describe in any particular detail what
2 that previous experience involved. But can you
3 summarize for the Board the nature of the courses that
4 you have taught that are relevant to this testimony?

5 A. I suppose basically, whether it was
6 in Waterloo or in Ryerson or for that matter in
7 Nigeria, the kinds of courses that I've been involved
8 in have been dealing with the social aspects of
9 resource management and with resource management theory
10 and practice.

11 Q. On page of 2 of your CV, you list
12 your teaching and research interests, your professional
13 affiliations and your administrative activities. Is
14 there anything here that you would like to highlight
15 for the Board?

16 A. I think two things. Under
17 Professional Learned Society Activities, I'm especially
18 proud of my association with the Heritage Resources
19 Centre at the University of Waterloo. This centre
20 focuses its effort on natural heritage - the natural
21 environment if you will - and has been quite
22 instrumental in bringing forward a number of issues
23 that are relevant to that broad area of concern; issues
24 such as, for example, heritage rivers; issues such as
25 visitor management in heritage areas, these kinds of

1 things.

2 In addition to that, I was also fortunate
3 enough to be included in the forestry task force which
4 concluded in the fall which was developed by the
5 Conservation Council of Ontario. The forestry task
6 forces was one of six task forces that the CCO had
7 developed in order to develop an environmental strategy
8 for the province.

9 Q. And then turning to page 3 of your
10 CV, you list the past and present research projects
11 that you have conducted. And again, I would ask you to
12 indicate whether there are any projects that you would
13 like to highlight for the Board at this time?

14 A. Yes, particularly I think four or
15 five, in fact. The first one that's ongoing at the top
16 of the page there is a research project funded by the
17 Social Science and Humanities Research Council of
18 Canada, "The Social Profiles of Wildlife Related
19 Recreation Activity in Canada", with my colleague from
20 the University of Waterloo, Professor Bob Graham.

21 That particular project uses the
22 information which was collected by the Canadian
23 Wildlife Service -- well actually by Stats Canada for
24 the Canadian Wildlife Service in 1982 and in 1987, to
25 develop what I call social profiles, which really means

1 who does what with wildlife in Canada. It's quite a --
2 both data sets were quite big and quite powerful
3 actually in terms of the kinds of tools they represent.

4 Secondly, the one immediately below that
5 funded by the Centre for Northern Studies at Lakehead
6 University and the Northern Scientific Training Program
7 from the Department of Indian Affairs and Northern
8 Development, focused on ecotourism in the Northwest
9 Territories. Ecotourism being tourism done primarily
10 for the appreciation of the natural environment.

11 Thirdly - I suppose these two really
12 together - the fourth one down and the fifth one down,
13 both focused on different aspects of wilderness policy
14 in Ontario, specifically, and part I hope of a larger
15 project that attempts to answer questions about how
16 wilderness policy is developed in the country,
17 specifically at the provincial level.

18 Perhaps one other, the very last one over
19 on page 4 from 1982 and -- 1983 and '84, a project that
20 I did under partial sponsorship with the Ministry of
21 Natural Resources - specifically the Owen Sound
22 District of the MNR - focusing on an assessment of the
23 recreation opportunities in the Pretty River Valley
24 Provincial Park Reserve. That park reserve has since
25 become a provincial park. That project utilized the

1 recreation opportunity spectrum about which we'll talk
2 more later.

3 Q. Turning next to the publications that
4 we find on page, 4 and the list of articles and
5 conference proceedings and refereed journals and so
6 on - I'm not going to go through any of those with
7 you - is it fair to say however, that most of those
8 papers address the theory and practice of natural
9 resource management and land use planning in natural
10 areas?

11 A. I think it's probably fair to say
12 that two-thirds of them do, yes.

13 Q. Okay. And then turning to page 7 of
14 your CV, we see a list of papers that you presented at
15 various conferences and professional meetings. Again
16 are there any that you would like to highlight for the
17 Board?

18 A. Yes, I think the one which is the -
19 one, two, three, four, five, sixth one down - "Social
20 Impact Assessment Sustainable Development in National
21 Parks in Canada", which was actually delivered by
22 Professor Rick Rawlins, my colleague at Lakehead at the
23 international impact -- International Association for
24 Impact Assessment. That paper is on the whole issue of
25 parks and sustainable development in a kind of

1 framework, I suppose in parks are the protection end of
2 continuum with development at the other end of
3 continuum.

4 In addition to that, I think probably
5 it's worthwhile focusing on the one at the top of page
6 8: "Issues Envisaged with Management Strategies".

7 This was a commentary really on the presentations made
8 by four agencies at a conference at the University of
9 Waterloo. Those four were: The U.S. Forest Service;
10 the U.S. Bureau of Land Management; the United States
11 National Park Service; and the Canadian Park Service,
12 the agency in Canada responsible for national parks.

13 That obviously, as the paper says
14 focuses -- or the title focuses on visitor management
15 strategies, and each of those agencies is embarking on
16 an attempt to bring visitors more into the centre of
17 their planning activities.

18 The next one, I suppose that's worth while
19 pointing out is the one that is the fifth one on that
20 page: "Customary and Traditional Knowledge in Canadian
21 Park Planning and Management - A Process Review", done
22 again with my colleague, Bob Graham, and presented at
23 the Social Science and Resource Management Symposium
24 two years ago, 1988.

25 That paper was cornered with trying to

1 wrestle with the issue of just how one manages to use
2 informal knowledge about the resource or about an
3 ecosystem in planning and management activities which
4 have, up until now, been happier - could we say - with
5 real scientific knowledge.

6 Q. And Dr. Payne, if I could I'd like to
7 leave your CV and go to the interrogatory package that
8 I've filed as Exhibit 1594.

9 I'd like you to refer to Question No. 4
10 from the MNR, and this is found in the fourth page in
11 of the package.

12 A. Yes, I have that.

13 Q. Okay. Now I understand that in the
14 course of your professional and academic work you've
15 had occasion to look at or review some of the
16 management plans and the district land use guidelines
17 and park management plans that we see listed here. But
18 I also understand that the list of the DLUGS that you
19 have looked at is incomplete.

20 Are there any other district land use
21 guidelines that you've looked at?

22 A. Yes, my DLUGS list is incomplete. I
23 should probably add to that the Thunder Bay District
24 Land Use Guidelines, the Nipigon District Land Use
25 Guidelines, the Bracebridge District Land Use

1 Guidelines, the Pembroke District Land Use Guidelines,
2 and the Kapuskasing Land Use guidelines.

3 MR. LINDGREN: Madam Chair, I don't have
4 any further questions for Dr. Payne with respect to his
5 experience and background. And it is at this time that
6 I would move that he be qualified as an expert in
7 geography and social science with particular expertise
8 in the planning and management of the human use of the
9 natural environment.

10 MR. COSMAN: Madam Chair, I'm not going
11 to challenge the qualifications of this witness insofar
12 as he can testify on geography, or perhaps more
13 accurately social geography as he stated in some of his
14 background materials.

15 But beyond that I think I'll leave it to
16 a question of, wait as to the evidence that he educes.
17 And I'll wait to hear what opinions he does give in
18 terms of my assessment, and what my submission will be
19 in terms of what weight you should perceive certain
20 opinions that go beyond those particular areas.

21 MADAM CHAIR: All right. Fine. Then
22 there's no objection to Dr. Payne being qualified as
23 having expertise in geography and social science with
24 particular expertise in planning and management of the
25 human use of nature resources.

1 MR. LINDGREN: I think we said natural
2 environment as opposed to resources.

3 MADAM CHAIR: All right.

4 MR. LINDGREN: And I think that
5 distinction is significant and Dr. Payne will
6 illustrate why.

7 MADAM CHAIR: All right. Fine.

8 MR. LINDGREN: Q. Dr. Payne, your
9 witness statement is entitled: "The Forest or the
10 Trees, Non-timber Values and Forest Management in
11 Ontario".

12 And before we get into your statement,
13 perhaps you can describe for the Board what you mean by
14 the phrase, "non-timber value", and can you contrast
15 that with what you understand to be the MNR's
16 conception of what a non-timber value is?

17 A. By "value" I understand a placing of
18 importance upon something by people. My understanding
19 of what the Ministry calls a non-timber value from
20 reading the document - the EA document itself as well
21 other things - is a little bit more difficult to put in
22 simple words. In several places the words are used in
23 different ways.

24 The one place I can remember the
25 non-timber values were called "features"; in another

1 place they were called "things", in yet another place
2 they were called "integrated resource management". To
3 me the question is a simple one: Values are held by
4 people. Things out there may be valued, but values
5 themselves originate with people.

6 Q. Okay. Thank you. And I'll return to
7 that in a few moments.

8 If I could I'd like to ask you to turn to
9 page - Roman Numeral (iii) of the witness statement.
10 And under the heading "Report Summary" you indicate
11 that:

12 "This witness statement is intended to
13 assess the extent to which the MNR is
14 able to account for and to manage and
15 protect non-timber values in the timber
16 management activities over which is has
17 responsibility in a large area of Ontario
18 which constitutes the area of the
19 undertaking."

20 And Dr. Payne can you at this time
21 provide the Board with your general conclusions as to
22 the MNR's present management and protection of
23 non-timber values within the area of the undertaking.

24 A. Well, I think it's fair to say that
25 the MNR's existing activities with respect to the area

1 of the undertaking, do not do justice to non-timber
2 values in the way that I've defined it. The MNR does
3 not seem to have a grasp on the idea that non-timber
4 values are held by people. The MNR seems not to be
5 able to understand that non-timber values might be
6 conceived outside of it's existing program areas.

7 Clearly, if non-timber values are held by
8 people, then the MNR must be able to understand those
9 non-timber values, and that means that the Ministry
10 must be capable of asking people about them. Formerly,
11 informally, there are many ways of doing it.

12 And to do that the Ministry requires
13 social science knowledge and social science
14 methodology. And my feeling is -- my reading is that
15 the Ministry is limited in its capability to deal with
16 social science knowledge and limited in its capability
17 to deal with social science methodology.

18 Q. Now in light of what you've just
19 said, are there any basic messages or themes to your
20 evidence with respect to non-timber values?

21 A. I suppose the first one is the one
22 that I've said several times so far, non-timber values
23 are held by people.

24 If the Ministry is going to deal with
25 non-timber values in timber management plans - or for

1 that matter, anywhere else - it's going to be necessary
2 to understand those values, understand the values that
3 the people of Ontario have with respect to the forests
4 of Ontario, with respect to the forest of the area of
5 undertaking.

6 And that means, furthermore, that it's
7 quite likely that the Ministry will have to invest both
8 time, effort and perhaps personnel in acquiring social
9 science knowledge and acquiring the social science
10 methodology necessary to use of the kind of data I'm
11 suggesting they should be collecting.

12 Q. Having heard your basic messages,
13 then perhaps we can move into the substantive content
14 of the witness statement.

15 I might ask you to turn to page 1, and
16 half down page 1, you refer to a mission goal in
17 Exhibit 32 which is: "Towards The 80s, A Guide to The
18 Organization and Management System". And there you've
19 indicated that the mission goal of the Ministry is:

20 "...to provide opportunities for outdoor
21 recreation and resource development for
22 the continuous social and economic
23 benefit of the people of Ontario, and to
24 administer, protect and conserve public
25 lands and waters."

1 And first of all, why did you find it
2 necessary to refer to that mission statement, and what
3 do you understand the mission statement to mean?

4 A. I refer to it because without a
5 mission statement - any mission - any organization is
6 essentially rudderless, it doesn't know where it's
7 going. The mission statement in my view is what an
8 organization like MNR measures itself against and
9 directs itself toward. That's the first reason I refer
10 to it.

11 Secondly, I think it's a very good mission
12 statement for an agency such as the Ministry of Natural
13 Resources which manages the public interest in the
14 natural environment. I certainly, personally and
15 professionally support that kind of mission statement,
16 and I would like to see the Ministry of Natural
17 Resources deliver on that mission statement.

18 Q. Now in the first paragraph above the
19 reference to the mission statement, you indicate that
20 you accept with reservations the stated policy
21 direction of Ministry towards the production of
22 sustainable, economic and social benefits -- i.e.
23 sustainable development for residents of Ontario.

24 Can you indicate what you mean by
25 "reservations"?

1 A. Well, my reservations concern the
2 implementation, a concern I suppose, the striving to
3 meet this mission statement. As I said, I don't think
4 the Ministry is presently well prepared to achieve
5 this.

6 If the Ministry, as I said, lacks the
7 understanding I think it needs to appreciate how people
8 value the natural environment in the area of the
9 undertaking -- and the Ministry has limited capability
10 in terms of social science, in terms of social
11 scientists to deal or to obtain that understanding.

12 Q. Now at the bottom of page is 1, you
13 indicate that the mission goal is stated somewhat
14 differently in the context of integrated resource
15 management. And there we see a definition of the
16 Ministry's view or a definition of integrated resource
17 management.

18 And can I ask you, is this an acceptable
19 definition in your view and if it isn't, why not?

20 A. It's not an acceptable definition in
21 my view. And it's not an acceptable definition because
22 it fails to keep in sight or in mind the basic mission
23 statement. This is an attempt - as the way the
24 Ministry puts it here - to eliminate conflict amongst
25 its programs.

1 It is, I suppose an internal attempt
2 which really has very little to do with the reality out
3 in the province itself as people perceive the natural
4 environment, use the natural environment, and I suppose
5 to a degree, as people perceive the Ministry in its
6 role.

7 MR. LINDGREN: Madam Chair, I can
8 indicate that we're going to be returning to the issue
9 of integrated resource management at a later point in
10 Dr. Payne's evidence.

11 Q. Now, Dr. Payne a few moments ago we
12 mentioned the term "sustainable development" and that's
13 a terms that you elaborated upon on page 2 in the
14 second paragraph where you refer to the World
15 Conservation Strategy that I filed a few moments ago.

16 Referring to that document, Dr. Payne,
17 can you briefly explain what you mean by "sustainable
18 development". What are the principles of
19 sustainability?

20 A. The World Conservation Strategy is
21 obviously an old document, 1980 but it is - I suppose
22 you could say - a wise document. It attempts to set
23 the stage through three principles for renewable
24 resource conservation and management. And the IUCN, as
25 well as a few other -- the organizations that were

1 originally involved in that have attempted to put more
2 flesh on those basic bones.

3 The three principles are:

4 First, that biological diversity ought to
5 be maintained. The second is that ecological processes
6 ought to be maintained. And the third is that our use
7 of natural resources ought to be done in a sustainable
8 way.

9 And what is meant by the authors of the
10 World Conservation Strategy by this form of
11 sustainability is threefold:

12 One, that developments ought to be
13 economically sustainable. Secondly, that they ought to
14 be socially sustainable. And thirdly, that they ought
15 to be ecologically sustainable.

16 Put the three together, and you have a
17 very good prescription for a policy regarding the
18 natural environment and regarding a society's use of
19 the natural environment.

20 Q. Dr. Payne, perhaps I can ask you to
21 actually look at the document, in particular at page 1.
22 And this is the -- the heading of the page is:
23 "Introduction Living Resource Conservation for a
24 Sustainable Development".

25 And Dr. Payne --

1 MADAM CHAIR: Excuse me, Mr. Lindgren,
2 we're just looking for that.

3 MR. LINDGREN: This is a document that
4 you filed within the binder a few moments ago.

5 MADAM CHAIR: Thank you.

6 MR. COSMAN: I'm sorry --

7 MR. LINDGREN: It's the World
8 Conservation Strategy. It's in Volume 2 of the source
9 book.

10 Q. And Dr. Payne, in paragraph 2 in the
11 last sentence, there's an indication that:

12 "Among the prerequisites for sustainable
13 development is a conservation of living
14 resources."

15 Do you accept that?

16 A. Yes, I do.

17 MS. BLASTORAH: Which one, Mr. Lindgren?

18 MR. LINDGREN: This is in paragraph 2 of
19 the first page.

20 MS. BLASTORAH: So not this page?

21 MR. LINDGREN: No.

22 MS. BLASTORAH: This is what you said,
23 that's the first page I have. Thank you.

24 MR. LINDGREN: Q. At paragraph 4, Dr.
25 Payne, "conservation" is defined as the:

1 "...management of human use, the
2 biosphere, so that it may yield the
3 greatest sustainable benefit to present
4 generations while maintaining its
5 potential to meet the needs and
6 aspirations of future generations."

7 And do you accept that definition?

8 A. Yes, I do.

9 Q. And in paragraph 7 we see the three
10 principles that you've just indicated relating to
11 ecological processes, genetic diversity and
12 sustainability of species and ecosystems. In paragraph
13 6 above that we see an indication that:

14 "Conservation is a process to be applied
15 cross-sectorially, not an activity sector
16 in its own right."

17 Do you accept that, and perhaps you can
18 explain to the Board what that means?

19 A. Yes, I certainly do accept that. I
20 think that most of talk that has been in the public
21 realm about sustainable development has acknowledged
22 that, that if we are going to talk about sustainable
23 development we need to talk about sustainable
24 development and forestry. We need to talk about
25 sustainable development and agriculture, it's a package

1 and it's not as the World Conservation Strategy rightly
2 points out. it's not a specialized department, it's
3 not a specialized area of activity. It needs to be
4 integrated into the process, into the activity.

5 Q. Now you've indicated that you accept
6 this definition.

7 In your view should the MNR endorse this
8 definition and incorporate it into its resource
9 management and planning system?

10 A. Yes, I think all three principles of
11 the World Conservation Strategy warrant inclusion at a
12 high level in the Ministry.

13 Q. All right. Now Dr. Payne, can you
14 generally summarize what needs to be done in terms of
15 non-timber value protection and management in Ontario
16 if the MNR were to endorse this and incorporate it into
17 it's planning?

18 A. I think the three principles ought to
19 be developed in such a way or into a forest policy as
20 it is currently being developed, and probably ought to
21 be placed too in a Crown land management policy as
22 general sorts of principles as they're set out here,
23 they weren't that level of concern, for sure.

24 Q. Okay. Thank you.

25 I'd like to turn part 2 of your evidence.

1 This commences at page 5 of the witness statement.

2 And Madam Chair, in light of your
3 comments at the scoping session, we won't be spending
4 much time on this particular section of the evidence,
5 but we will spend a few minutes discussing values and
6 their place in natural resource management.

7 As I indicated at the scoping session, in
8 order to properly identify, "management and protect
9 non-timber values" we have to understand what they are.
10 So I propose to spend just a few moments doing that
11 with Dr. Payne.

12 Q. And Dr. Payne, perhaps the best way
13 to do that is this: Using white pine as an example,
14 can you briefly describe what you mean by "value"?

15 A. I think if you look at a white pine
16 out in the bush you can put upon it several values.
17 Perhaps a forester would look at a white pine and see
18 board feet of lumber, a perfectly legitimate kind of
19 valuation, obviously one that is tied to a market of
20 some sort; those board feet of lumber are going to be
21 sold. Consequently, we could call that a market value.

22 One could also - I suppose - look at that
23 tree from a -- well, as a symbol; a symbol perhaps of
24 Ontario, it is Ontario's official tree. A symbol
25 perhaps of what Ontario used to be like. White pine

1 are not nearly as numerous as they once were. And it's
2 quite possible and realistic to look at that the pine
3 that way.

4 Clearly, the symbolic nature of the pine
5 doesn't lend itself very well to expression in economic
6 forms. Although it is possible, I suppose, if you were
7 keen enough to do this, you could count up the number
8 of photographs that have been taken of that particular
9 white pine by any number of people over the years and
10 come up with some dollar figure. How meaningful it
11 would be, would be another question. But I think it's
12 fair to say that the symbolic value is definitely
13 there.

14 One could also, I suppose especially if
15 that white pine were situated beside an existing canoe
16 route consider that it could have - for people passing
17 it by in canoes - aesthetic value. It is, after all,
18 a fairly significant feature in the north and people do
19 see it in aesthetic ways.

20 The Group of Seven certainly saw it that
21 way and many people still now appreciate that aesthetic
22 value even though they perhaps may have never seen a
23 white pine in the wild.

24 That's three, I suppose valuations of the
25 white pine right there, all different perhaps with the

1 possibility of making connections amongst them, but
2 definitely valuations, and in my view, equally valid as
3 values.

4 Q. Now you've indicated that the same
5 natural feature or object can give rise to different
6 types of valuations.

7 Does that mean that value is something
8 that's simply subjective, it's merely in the eye of the
9 beholder, as it were?

10 A. No, it doesn't mean that. Clearly,
11 if in the case of the forester who is looking at it
12 from the point of view of board feet of lumber, if the
13 species had no value - had no market for the board feet
14 of lumber - then he could look at it with as much
15 longing for it to have that as possible, and it still
16 wouldn't. There's a reality there of that valuation
17 actually in the tree. The tree can be used for that
18 kind of lumber. It's real.

19 We've made the white pine a symbol, the
20 tree of Ontario, that is real too - perhaps not real in
21 the same way - but it's real, it has been put in that
22 way. And the aesthetic view of the white pine in
23 Ontario, I suggest, has been given a great deal more
24 reality than it might otherwise have by painters such
25 as the Group of Seven who have virtually burnt it into

1 our consciousness. And I think that is real as well.

2 So in essence, what I'm saying here is
3 that certainly there is subjectivity involved, an
4 individual comes to looking at the white pine with
5 something in mind. And that's subjective, there's no
6 doubt about that. But the "something in mind" has to
7 be supported by the white pine, and that's objective.

8 And so what we see here is a situation
9 where the viewer, if you like, or the potential user is
10 taking a subjective approach -- perhaps an interest, if
11 you like. And white pine is able to support these
12 three kinds of values. And in essence then, what you
13 see is a kind of mixing, if you like, of subjectivity
14 and objectivity.

15 All three of those valuations are real
16 because the white pine can support all three. All
17 three are subjective because the valuers look at the
18 white pine in different ways.

19 Q. And Madam Chair, I can indicate we'll
20 be talking about the implications of what Dr. Payne is
21 talking about in terms of natural resource management
22 in a few moments.

23 Now before we move on Dr. Payne, in your
24 evidence you make three distinctions that I would like
25 to ask you some questions about.

1 The first is the distinction between
2 "held values" and "assigned values", and can you very
3 quickly summarize what that distinction is about?

4 A. This distinction is one I think of
5 precision. A held value is - well, shall we say -
6 fuzzy. One might value the north, the forest, perhaps
7 even the boreal forest depending on who one was,
8 without being particularly specific about where, or
9 perhaps what in the forest that one valued.

10 On the other hand, one might say, I value
11 the boreal forest because it is a source of wood fiber
12 for the mills in Thunder Bay. That's much more
13 specific, and I think that is the essence of the
14 difference between them. The held value is assigned,
15 perhaps deeply felt. The assigned value -- did I say
16 assigned? I meant the held value is fuzzy, it's there,
17 it's diffuse.

18 The assigned value is much more precise,
19 and is usually assigned by someone who has a particular
20 interest in the valued thing.

21 Q. You've also made a distinction
22 between values and benefits. And again, can you
23 briefly summarize what that distinction entails?

24 A. Yes. I think it's a necessary one
25 for several reasons.

1 One, that economists have tended to sort
2 of take the word "value" and make it their own. And
3 that's unfortunate because I think that in a
4 philosophical sense, value is much broader than that.
5 As I said earlier, values are held by people about the
6 importance of natural things.

7 Benefits, on the other hand - perhaps
8 rightly - belong in the camp of economists, because
9 benefits are what you can use something in nature for.
10 In other words, you are taking that natural thing and
11 turning it in into something. And I guess you could
12 say that in that sense, benefits are kind of like value
13 added.

14 Q. If that's what a benefit is, what is
15 a cost?

16 A. A cost, I suppose by implication is
17 value taken away in the same way I was talking about
18 the benefits.

19 Q. Okay. And thirdly and finally, you
20 made a distinction between social values and individual
21 values. And again, what's that distinction?

22 A. That distinction too is an important
23 one. Many people in our society - and I think that
24 probably this is something that is a trend that's going
25 to extend - many people hold many different sorts of

1 values about the natural environment and about other
2 things.

3 Only some of those values ever get into
4 law and other forms of institutions where they really
5 give form to those institutions. It's important to
6 understand that those values that get into institutions
7 and get into laws, change over time. Such change does
8 take a long time to occur.

9 So in essence, there is a competition, if
10 you like, or conflict perhaps between individual and
11 social values but there is a possibility at any rate
12 that some individual values might be held by so many
13 different people that they become in essence a social
14 value. I guess if we look back in terms of resource
15 management we can see this happening.

16 It wasn't all that long ago - well,
17 perhaps it was 100 years ago in this province - when
18 unbridled exploitation of natural resources was
19 replaced by a concern for their wise use on at least an
20 economic efficiency terms. The whole issue of waste
21 became something that seemed to be important, and it
22 almost became a moral principle that one ought not to
23 waste natural resources. That's a change, that took
24 some time to occur.

25 I suggest to you that we are in the midst

1 of another change of that sort which we'll see
2 ecological concerns coming up to the same levels as
3 perhaps our concern over efficiency in terms of how we
4 use resources.

5 Q. If I could then refer you to pages 15
6 to 17 of your witness statement. There, you attempt to
7 put this discussion altogether in terms of what it
8 means for natural resource management.

9 And can I ask you to summarize what your
10 discussion about how values and assigned values,
11 benefits and values, and social values and individual
12 values -- what does that mean for natural resource
13 management in general? And in particular, what does it
14 mean for the Ministry of Natural Resources?

15 A. I think we have to accept the idea
16 that values and natural resource management are closely
17 interwoven. It's not relevant to suggest that a
18 resource manager ought to be value-free in the sense
19 that perhaps a scientist ought to be value-free.

20 Whenever you undertake an action in the
21 world, whenever you undertake to manage or design or to
22 plan, you are putting into action or potentially
23 putting into action a group of values which you are
24 trying to achieve. So natural resource management must
25 be shot through with values, and must always be

1 attempting to put into operation values and reflect
2 values in what it's trying to do.

3 For the Ministry of Natural Resources the
4 question is: Whose values? And the answer to that I
5 think lies in the Ministry's mission statement where
6 "whose values" -- well, the people of Ontario who the
7 Ministry promises will have economic and social
8 benefits accruing to them from natural resource
9 management.

10 If the Ministry is serious about that
11 mission statement - and I suggest they certainly should
12 be - then it's incumbent upon them to begin to deal in
13 a more up-front way and a more comprehensive way and a
14 more sophisticated way with the values that Ontarians
15 have about the natural environment.

16 MR. LINDGREN: And again, Madam Chair,
17 we'll get into the particulars of what Dr. Payne is
18 advocating in a few moments.

19 Q. On page 17, you discuss different
20 valuations of nature, and you've broken them into
21 utilitarian and non-utilitarian valuations.

22 Can you briefly describe what you mean by
23 each term and can you offer examples of each term?

24 A. By "utilitarian valuations", I mean
25 those kinds of evaluations of nature that are

1 instrumental: The forester sees the white pine as a
2 source of board feet of lumber and he knows that he has
3 a market for that particular form of lumber.

4 Other instrumental values I suppose are
5 recreational values. Certainly, the canoeist canoeing
6 in the backcountry of northwestern Ontario uses the
7 natural environment to achieve the sorts of
8 expectations or the sorts of experiences that's he's
9 out there in the first place to achieve.

10 Scientific value, I suppose is another
11 example of a utilitarian value. We need to understand
12 the natural world if we are going to utilize it in a
13 market sense, if we're going to perhaps utilize it in a
14 medical sense. Clearly, there is that dimension that
15 is in the scientific side of things.

16 There is another group - I think a much
17 smaller group - of values which I described as
18 non-utilitarian, and those are essentially ecological
19 values: Values which have relevance which are valued
20 in and of themselves, not because we necessarily want
21 to use the valued things for anything in particular. A
22 biological diversity I think is an example of such a
23 value. And perhaps so too, is the whole issue of
24 ecological functioning or ecological processes.

25 Both are so basic to our lives - never

1 mind the lives of the creatures in the forest - that if
2 we did not value those, we would be putting ourselves
3 as well as the elements of natural biosphere at risk as
4 well.

5 I think it's fair to point out though
6 that the view that sees these as "either or", that a
7 value either all utilitarian or all non-utilitarian is
8 mistaken. I think I would rather present to you these
9 utilitarian and non-utilitarian values as opposite ends
10 of continuum that there are those values that are
11 primarily utilitarian; almost exclusively utilitarian
12 but not completely, exclusively utilitarian. Perhaps
13 market value is at that end of the spectrum.

14 At the other end, we can talk about
15 biodiversity which doesn't necessarily have to have any
16 kind of utilitarian context at all. But to a medical
17 researcher who's concerned with finding a cure to
18 cancer or AIDS or some such thing as that, the fear
19 that the loss of some rare plant or some plant in the
20 Amazon rain forest - or for that matter the boreal
21 forest - may mean that cure goes wanting or that that
22 cure is never found. And that certainly is a
23 utilitarian kind of thing.

24 So I'd prefer it we talked about
25 utilitarian and non-utilitarian on this continuum

1 rather than in an "either or" sort of situation.

2 Q. Now through the interrogatory
3 process, Dr. Payne, we received a question or two
4 relating to use value, and there appears to be some - I
5 don't know - confusion or misunderstanding as to what
6 use value is, and perhaps you can briefly describe what
7 that is.

8 A. "Use value" to me indicates that for
9 a group of people - perhaps for an individual - the use
10 of something in the natural environment, perhaps a
11 wildlife species is for essentially subsistence
12 purposes. Perhaps in the old days, perhaps still
13 native people in the northern part of the province -
14 perhaps in the Northwest Territories and the Yukon -
15 essentially lived off the land.

16 The difference between that and using the
17 natural environment for recreation purposes or valuing
18 the natural environment for recreational purposes is
19 that the subsistence element is a key aspect here.

20 In addition to that, people who have
21 studied this far greater than I have, have indicated
22 that very often use value is firmly entrenched in a
23 system of social relations amongst people where there
24 are gifts exchanged and so on, or where food is shared.
25 And that very sharing helps sort of cement ties with

1 people.

2 It's a concept I think that has probably
3 much more to do with traditional societies than it does
4 with our own. Our view tends to be more oriented
5 toward a kind of a surplus value. What else can we get
6 by taking a natural feature and making it into
7 something else perhaps, or selling it for something
8 else rather than just simply using it for a shirt or
9 for food or some such thing as that?

10 Q. Now Dr. Payne, you've described
11 various types of values. Can you convert certain
12 values such as recreational value into market value?

13 A. Yes, you can. I think that it's
14 probably safe to say that those with a primary --
15 primarily a utilitarian bent to them do have that
16 possibility. There have been numerous efforts - dating
17 back to into the 1950s for that matter - by economists
18 and social scientists and so on to do just that, to try
19 and find out how much people are willing to pay for a
20 recreation experience or a recreation opportunity.

21 Q. And Dr. Payne, why would you want to
22 do that, and is that being done anywhere in the context
23 of natural resource management?

24 A. Well, you'd want to do that if you
25 were trying to come up with dollar values and if you

1 were trying to express benefits of that kind of
2 valuation in dollar terms, so that you could perhaps
3 compare the use of area for a particular form of
4 recreation with the use of an area for a particular
5 resource extraction purpose. It obviously sets up a
6 benefit cost, a sort of an analysis that allows you to
7 do allocation.

8 Organizations, yes, that are doing this:
9 the U.S. Forest Service has spent a lot of time dealing
10 with the methods and trying to put the methods into
11 practice.

12 Q. And I believe that that whole issue
13 is addressed in the Peterson and Sorg article which we
14 find in the source books.

15 A. That's quite true. In addition to
16 that article that you have in source book 1 I believe,
17 the A version has a paper in it by Dr. Bev Driver from
18 the U.S. Forest Service in Fort Collins Colorado. And
19 he goes into considerable detail talking about
20 benefits, and in fact differentiates between benefits
21 that are market-oriented and other benefits that he, I
22 think, is trying to connect more to the social benefit
23 realm, and therefore are not particularly well express
24 in dollar terms.

25 Q. Now in a general way, can you

1 indicated how you go about determining whether or not
2 Ontarians hold these values about the forests of
3 Ontario?

4 A. I think there are at least two ways
5 of doing it and probably more than that. Certainly,
6 the surveys - that is social surveys - can be done to
7 find out what people value in the natural environment
8 and how people value it.

9 In addition to that I think there are
10 plenty of opportunities and plenty of good reasons for
11 taking these opportunities to ask people more closely
12 affected, that is in the local area of say timber
13 management plans or timber operations, what they
14 particularly value in the natural environment. I think
15 those two ways are the two most obvious, at least in
16 the context of these hearings.

17 Q. Once you gather that kind of
18 information, what do you do with it in the context of
19 resource management and planning? Do you collect it
20 simply for the sake of collecting it?

21 A. No, you don't. I mean there's not
22 much point to that. It's usually quite expensive and
23 time consuming to collect social information of any
24 kind, and it's really a waste of effort and a waste of
25 agency resources to just simply go out and grab big

1 bundles of information.

2 Before you even collect information, I
3 think it's necessary to know what you want to do with
4 it. In other words, a research kind of orientation I
5 suppose or an information gathering orientation has to
6 be part of a strategic approach to resource management.
7 And that strategic approach should help you determine
8 which kind of information and how much information
9 you're going to require.

10 Q. In your opinion, is the Ministry of
11 Natural Resources currently gathering and using that
12 kind of social science data in this strategic manner
13 that you've illustrated?

14 A. I think the answer to that is
15 unfortunately, yes and no. I have back in Thunder Bay
16 the two versions of the Canadian Wildlife Data Set, the
17 1982 version, which is in excess of 76-thousand
18 interviews and about 14-thousand in Ontario.

19 And the 1987 version of that same data
20 set which has across the country about 56-thousand
21 interviews and about 10-thousand from Ontario, and it
22 is my understand that those data sets are being used to
23 some small extent in the Wildlife Branch of the
24 Ministry at the moment.

25 In addition to that, I know and have the

1 data from the Provincial Parks Branch from a study
2 which was funded by the Ministry to determine who used
3 provincial parks, and who didn't use provincial parks
4 and the usual other things: how much? where? and so
5 on and so forth. But to my knowledge too, that
6 information is being used slightly at the moment only
7 in the Provincial Parks Branch.

8 I guess what my concern is - especially
9 with the Canadian Wildlife Service data since Ontario
10 took part in it, participated in it as a partner and
11 also contributed financially to its execution - that
12 it's somewhat surprising to me that such a rich source
13 of social information and social science information,
14 does not find its way out of the Wildlife Branch and
15 into use by other components of the Ministry.

16 Q. In your opinion, should the Ministry
17 be gathering and using that kind of social science
18 information and data with respect to all resource
19 programs including timber?

20 A. It certainly should. I mean this is
21 where the Ministry would be able to find out what sorts
22 of things the Ontario public values in the natural
23 environment, what sorts of things the Ontario public
24 wants from the natural environment. And it's up to the
25 Ministry - if we're to take seriously their mission

1 statement - to deliver on those sorts of things.

2 Q. And Madam Chair, before I move on
3 again, to anticipate some of the further evidence of
4 Dr. Payne, I can indicate that he is going to be using
5 the Canadian Wildlife Service data to provide an
6 example of what you can do with the data in terms of
7 resource planning and timber planning. I think we'll
8 be doing that tomorrow.

9 On pages 38 and 40, Dr. Payne, of the
10 witness statement, you discuss the emergence of the
11 environmental ethic that you referred earlier.

12 Can you briefly describe what this ethic
13 is and can you indicate what it means in terms of this
14 particular undertaking?

15 A. An environmental ethic I suppose is
16 almost -- well, I guess it is a moral position on the
17 natural environment. There is some -- well, a great
18 deal of discussion in at least the academic literature
19 and perhaps elsewhere about the appropriateness of such
20 an environmental ethic. But those people who argue
21 that an environmental ethic is emerging and should be
22 emerging, are arguing that an environmental ethic ought
23 to be placed right up there with our existing ethic.
24 Might I suggest to you our existing ethic is
25 essentially one of economic efficiency in the classic

1 sense.

2 I think an environmental ethic is
3 certainly something that would allow for example, the
4 principles of the World Conservation Strategy to gain
5 wider use and perhaps deeper use in the sense of being
6 integrated into policy, and perhaps even operations.

7 Q. On pages 40 to 41, you discuss the
8 relationships between values, activities, and benefits.

9 And can you briefly summarize this
10 portion of your evidence, and can you indicate what the
11 implications are for this particular undertaking? And
12 perhaps you can use sport fishing as an example.
13 That's an example that you used in the--

14 A. Yes.

15 Q. --witness statement?

16 A. Yes. If one has values or if one
17 values the natural environment in a different way, my
18 approach is then that one is likely to behave to act in
19 different ways, and perhaps to take part in activities
20 that reflect the difference in ways in which people
21 evaluate the natural environment and value the natural
22 environment.

23 I think then that it's possible to make
24 the connection from people's involvement in activities
25 to benefits. We can, for example, total up total

1 expenditures and come to some kind of economic value
2 that might be associated with something like sport
3 fishing.

4 But there's plenty of evidence to suggest
5 that sport fishing is not a kind of one-dimensional
6 activity, that sport fishermen themselves look for
7 different things and in effect value different parts of
8 the natural environment when they go - what we call -
9 sport fishing.

10 The fly fisherman for example is a good
11 example because that individual has not only
12 specialized equipment, but he or she is also going into
13 essentially a specialized environment to pursue really
14 only one particular species of fish, trout. That
15 individual or rather those individuals who value the
16 natural environment that way are not going to be
17 particularly happy trying to catch trout even in their
18 funny methods, in say, the put-and-take sorts of areas
19 that the Ministry of Natural Resources and the
20 conservation authority areas make available to
21 essentially mom, dad, and the kids.

22 Q. All right.

23 A. And you have people who are there
24 perhaps to introduce their youngsters to fishing,
25 introduce their youngsters to the natural environment,

1 and perhaps were there for to keep some sort of social
2 cohesion in their family unit. Whatever the reasons
3 may be, they are very different sorts of reasons than
4 what the angler who is out there fly fishing is doing.
5 Very different sorts of reasons, I think.

6 I suppose we can talk too about the sort
7 of angler who is concerned with catching trophy fish, a
8 very different kind of pursuit again, still sport
9 fishing. But the point I want to make here is that the
10 individuals are valuing the natural environment very
11 differently and their use, their activities reflect
12 that different valuation.

13 Now once we get by that part of it, it's
14 easy to begin to talk about: Well, what are the
15 benefits of say fly fishing that we can identify?
16 Well, we can talk about how much a typical fly
17 fisherman spends on equipment; where the fly fisherman
18 goes to do this; and how much in terms of gas,
19 accommodation, food and all the rest of it, but in the
20 usual kinds of manners. We'd likely find that just as
21 the individuals and their valuations differ, just as
22 the activities differ, probably the sorts of benefits
23 or the lump amount of benefit would also differ.

24 And again, I think it's important to know
25 this because quite clearly these are different sorts of

1 decisions that a ministry, like MNR, has to make in the
2 context of its fishing operation.

3 Q. Okay. Thank you.

4 And at page 44 of the witness statement,
5 you outlined the elements of a comprehensive forest and
6 planning and management system. Now you refer to FFT
7 Panel No. 10 on that issue. I take it that you read
8 that particular panel--

9 A. Yes, I have.

10 Q. --and you relied on it for this
11 portion of your evidence? Is that correct?

12 A. Yes, that's correct.

13 Q. Now can you advise me as whether or
14 not the forest management and planning process
15 described in that witness statement, does that address
16 your concerns about the management integration and
17 protection of non-timber values?

18 A. It certainly goes a long way to doing
19 so. I think that people from the forest service in the
20 United State which clearly this is drawn from, would be
21 among the first to tell you that there are still
22 problems with the way in which they do business;
23 whether it's timber areas or other areas, but I think
24 that their use of social science information, and I
25 would say probably their use of strategic use of social

1 science information to answer the kinds of questions
2 that they need.

3 And their ability as an organization and
4 as individuals in that organization to connect that
5 social science information on how people value the
6 natural environment in the national forests under their
7 control to develop benefits, and then to use that
8 benefits information and cost benefit analysis is quite
9 good.

10 MR. MARTEL: Can I just ask what you just
11 said because I missed a point? You're speaking about
12 American--

13 THE WITNESS: That's right, yes.
14 That's --

15 MR. MARTEL: --and not the present
16 planning system in Ontario?

17 THE WITNESS: No, I was talking about the
18 American system, that's correct.

19 MR. MARTEL: Yes, thank you. I just
20 wanted to have that clarified.

21 MR. LINDGREN: Q. And Dr. Payne, at the
22 bottom of page 44, you indicate that:

23 "Sophisticated cost benefit analyses are
24 also required if the trade-offs among
25 possible allocations for resource use or

1 non-use are to be made in a manner that
2 is credible and traceable."

3 And we received some interrogatories on
4 this terminology. What do you mean by "sophisticated
5 costs benefit analysis"?

6 A. By "sophisticated", there I meant
7 several things. On the one hand, I mean that we need
8 to make sure that we look at cost benefit analysis in a
9 very broad way.

10 Dr. Bev Driver, in his paper in the
11 source book, in source book B -- oh, no, source book A,
12 sorry -- has differentiated it into two kinds of
13 benefits, and I think that it's his view - and I agree
14 with him - that we really need to get both the basic
15 economic kinds of benefits that we've been dealing with
16 perhaps for the last 30 years in natural resource
17 management.

18 But we also need to get in those kinds of
19 benefits that are what he calls, "social benefits", the
20 sorts of things that come about because the environment
21 is well protected and is available for use by any
22 number of different people. Those social benefits are
23 much more intangible. And the cause and effect
24 dimensions around those social benefits are much more
25 difficult to understand or indeed to describe.

1 And yet, if we're going to be doing this
2 kind of sophisticated cost benefit analysis, I think we
3 need that sort of dimension as well as the economic
4 dimension. There's always a danger about taking
5 straight out the economic cost benefit analysis -- is
6 that the things that are not amenable to quantification
7 in dollar terms simply do not enter the equation. And
8 that's unfortunate because many of the things, many of
9 the values that Ontarians hold about the natural
10 environment, about the forest, don't lend themselves to
11 quantification, but still ought to be there.

12 Q. You've anticipated my next two and
13 perhaps final questions, Dr. Payne. First of all, at
14 what level should that kind of sophisticated cost
15 benefits analysis occur?

16 A. Well, I think it should certainly
17 occur at the Forest Management Unit Level, and it will
18 probably should occur first and foremost at the
19 district level where land use planning is done.

20 In many ways, if you wanted to do an
21 analogy here, one could say the district is like the
22 national forest in the American example, that's where
23 the planning happens, that's where it should be done.

24 Q. And my final question has to do with
25 an interrogatory that we received from the Ministry of

1 Natural Resources, and this is in Exhibit 1594, and
2 it's Question No. 2. And the question was:

3 "For non-timber values that cannot be
4 quantified, can all these values be
5 addressed in timber management planning,
6 and if so, how?"

7 And my question to you is perhaps a
8 little more focused than that. What happens to the
9 nonutilitarian values? Can they be quantified and
10 thrown into the cost benefit operative, if you will?

11 MS. SEABORN: Just before you answer, Dr.
12 Payne, Mr. Lindgren, that was a question posed by the
13 Ministry of the Environment and not by the Ministry of
14 Natural Resources.

15 MR. LINDGREN: I refer to MOE Question
16 No. 2.

17 MS. SEABORN: Yes, you said in your
18 question to Dr. Payne it was MNR, Question No. 2--

19 MR. LINDGREN: Thank you, Ms. Seaborn.

20 MS. SEABORN: --just for clarification of
21 that.

22 MR. LINDGREN: Thank you.

23 THE WITNESS: A. It's true that one very
24 important dimension of the nonutilitarian valuations
25 that people have of the forest don't enter particularly

1 well on cost benefit analysis. Such aspects as for
2 example, the biodiversity is often a deeply felt kind
3 of thing and especially where it touches on the other
4 important variable -- the other important value,
5 ecological functioning, is really impossible I think to
6 put into that kind of context.

7 This is why I said earlier that those
8 sorts of values have to find their way into forest
9 policy and into Crown land management policy, because I
10 think they warrant such high level consideration at
11 that level. At the same time, I suppose it is
12 possible - and we will have I think witness statements
13 coming forth who are better qualified to speak on
14 this - for example to measure species richness which is
15 a component of biodiversity.

16 MR. LINDGREN: This may be an appropriate
17 time for break, Madam Chair.

18 MADAM CHAIR: That's fine, Mr. Lindgren.
19 How long will you take tomorrow?

20 MR. LINDGREN: There's a very realistic
21 possibility that I'll finish by the afternoon break,
22 tomorrow afternoon.

23 MADAM CHAIR: All right.

24 We've received a note from the OFAH today
25 that they won't be available to cross-examine until

1 Thursday morning. Mr. Cosman, has the OFAH been in
2 touch with you?

3 MR. COSMAN: No, I was going to speak to
4 Mr. Hanna tonight because, as you know, he's indicated
5 he has up to a day of cross-examination on this
6 particular panel.

7 Perhaps what we ought to do -- the
8 afternoon break could easily be the end of the
9 afternoon, it's hard to know. But I certainly want to
10 reserve my right to follow the OFAH on this. And I
11 will speak to Mr. Hanna tonight to find out his
12 situation.

13 MADAM CHAIR: All right. Thank you, Mr.
14 Cosman.

15 Depending on how early we finish tomorrow
16 if we can't get Mr. Cosman to go before the OFAH - and
17 the OFAH won't be here until Thursday morning and we
18 are breaking Thursday at noon anyway - I don't know if
19 it benefits everyone having Dr. Payne stay down here.
20 We might finish tomorrow rather than finishing early in
21 the day and waiting around and coming back for a half
22 day on Thursday.

23 MR. LINDGREN: Oh, correct.

24 Well, perhaps we can revisit this issue
25 by the lunch break tomorrow, because I'll have a very

1 good sense as to where I am. I can say that I'm making
2 faster progress that I had anticipated.

3 MADAM CHAIR: Yes. Well, you can be
4 finished by noon tomorrow. Not that quickly, Mr.
5 Lindgren?

6 MR. LINDGREN: Not that quickly, Madam
7 Chair, but --

8 MADAM CHAIR: All right.

9 MS. BLASTORAH: Madam Chair, may I just
10 ask, I've heard - I believe correctly - that we are not
11 sitting Monday, is that correct?

12 MADAM CHAIR: That's right.

13 MS. BLASTORAH: Thank you, Madam Chair.
14 I just wanted to be clear on that.

15 MADAM CHAIR: We'll start on Tuesday at 9
16 o'clock.

17 MS. BLASTORAH: Thank you, Madam Chair.

18 MADAM CHAIR: Thank you, Dr. Payne.
19 We'll see you tomorrow morning.

20 ---Whereupon the hearing was adjourned at 4:00 p.m., to
21 be reconvened on Wednesday, November 28th, 1990,
22 commencing at 9:00 a.m.

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